



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 10:38 PM UTC

PDB ID : 4V8W / pdb_00004v8w
EMDB ID : EMD-2357
Title : Structure and conformational variability of the Mycobacterium tuberculosis fatty acid synthase multienzyme complex
Authors : Ciccarelli, L.; Connell, S.R.; Enderle, M.; Mills, D.J.; Vonck, J.; Grininger, M.
Deposited on : 2013-04-18
Resolution : 17.50 Å (reported)
Based on initial model : 3ZEN

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

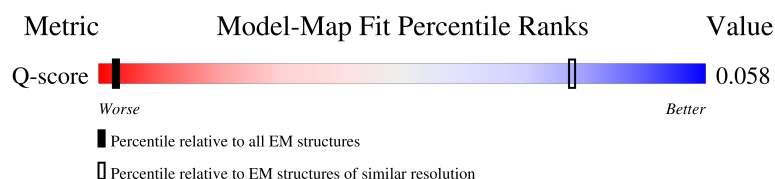
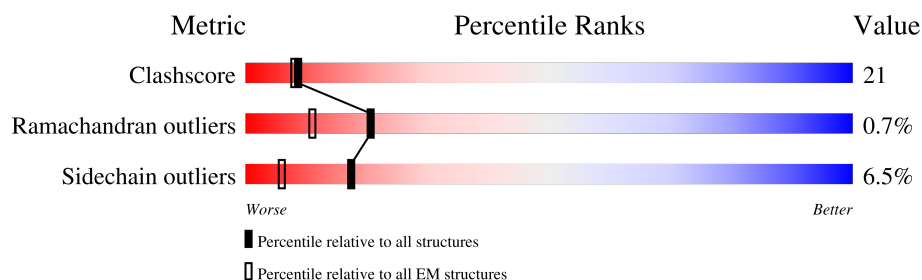
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 17.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	45 (17.00 - 18.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	3089	
1	B	3089	
1	C	3089	
1	D	3089	

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Mol	Chain	Length	Quality of chain
1	E	3089	56% 32% 9%
1	F	3089	55% 32% 9%

2 Entry composition [i](#)

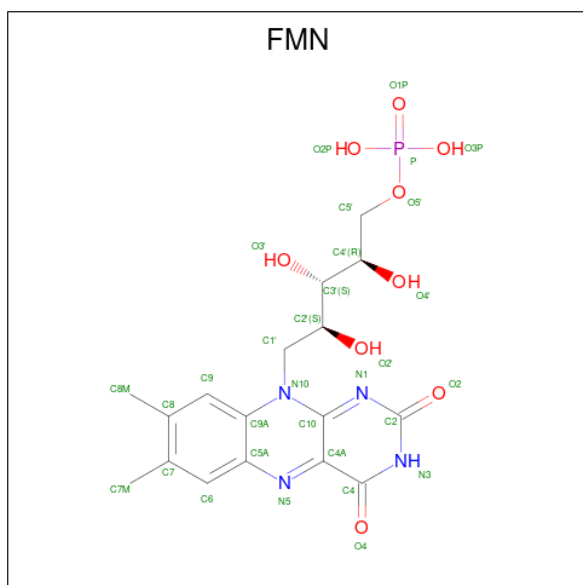
There are 2 unique types of molecules in this entry. The entry contains 123082 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called TYPE-I FATTY ACID SYNTHASE.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	D	2452	Total	C	N	O	S	0	0
			18171	11459	3176	3473	63		
1	E	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	F	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	A	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	B	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	C	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		

- Molecule 2 is FLAVIN MONONUCLEOTIDE (CCD ID: FMN) (formula: $C_{17}H_{21}N_4O_9P$).



Mol	Chain	Residues	Atoms					AltConf
2	D	1	Total	C	N	O	P	0
			31	17	4	9	1	

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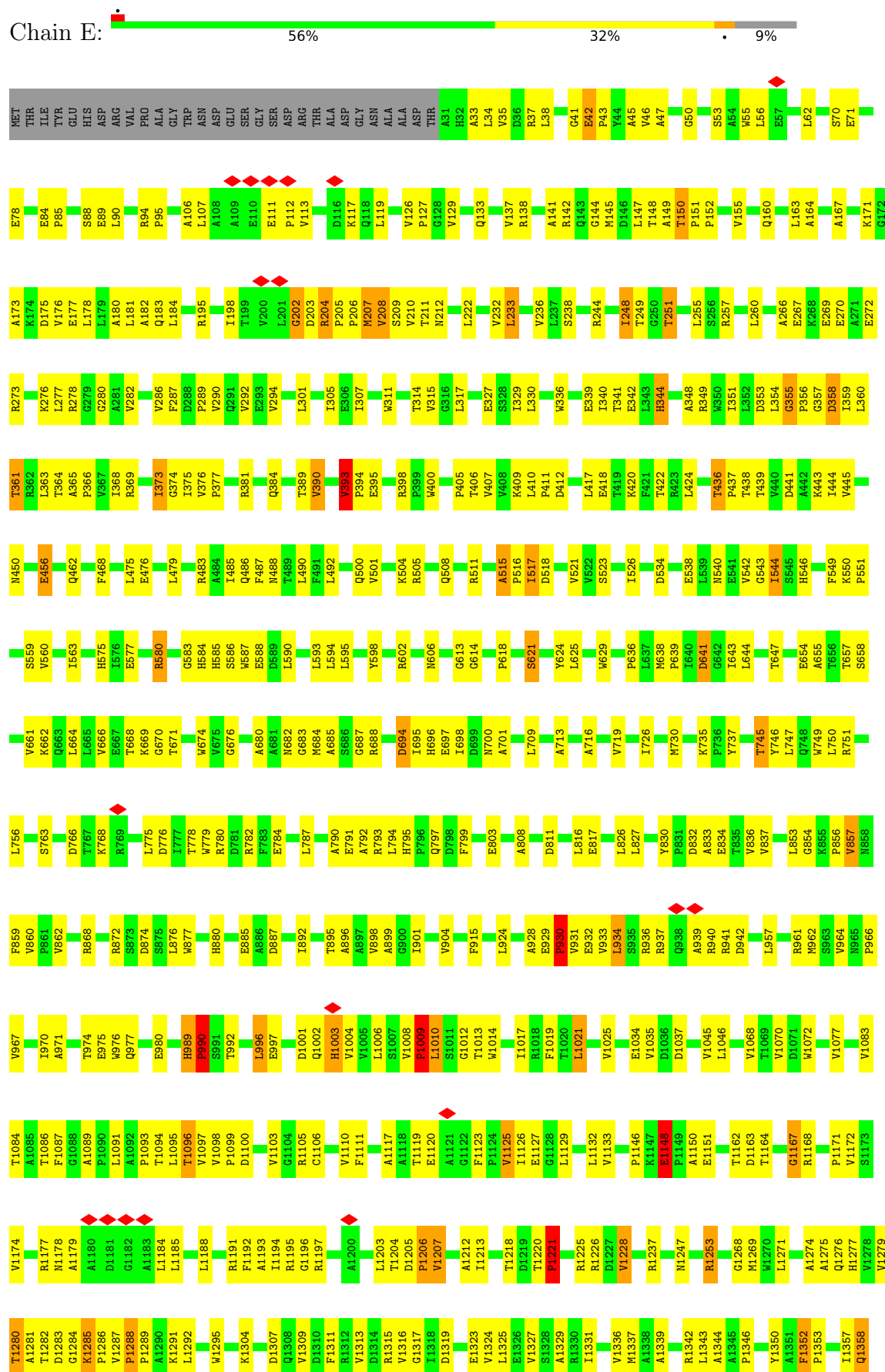
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Mol	Chain	Residues	Atoms					AltConf
2	E	1	Total 31	C 17	N 4	O 9	P 1	0
2	F	1	Total 31	C 17	N 4	O 9	P 1	0
2	A	1	Total 31	C 17	N 4	O 9	P 1	0
2	B	1	Total 31	C 17	N 4	O 9	P 1	0
2	C	1	Total 31	C 17	N 4	O 9	P 1	0



V3064	P3065	S3066	K3067	R3068	Q3069	M3073	L3074	L3075	S3076	T3077	R3080	L3081	L3089	P2957	G2958	D2959	S2960	L2961	D2962	D2966	S2967	L2975	W2976	V2977	R2978	E2979	P2980	L2983	F2987	P2988	G2992	L2993	V2994	T2995	G2998	F2999	G3000	H3001	V3002	L3005	V3009	F3014	I3015	A3016	A3017	L3018	D3019	K2935	G2936	A2939	V2940	F2941	Q2942	M2943	L2946	C2947	Q2948	D3057	R3058	R3059	H3062	D3063																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

• Molecule 1: TYPE-I FATTY ACID SYNTHASE







Frequency	Percentage
Daily	55%
Often	32%
Sometimes	9%
Never	4%



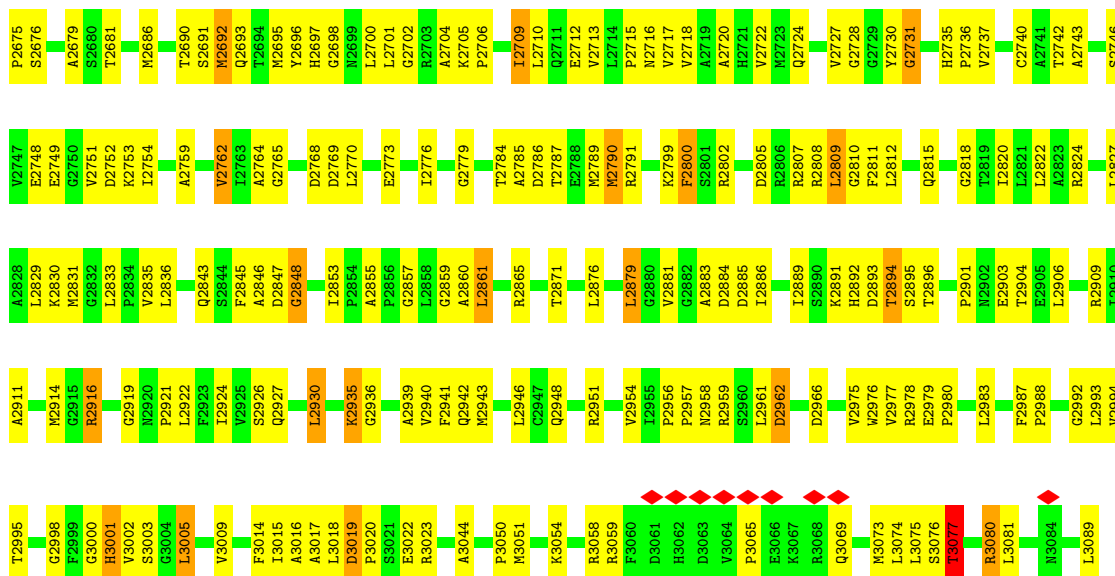




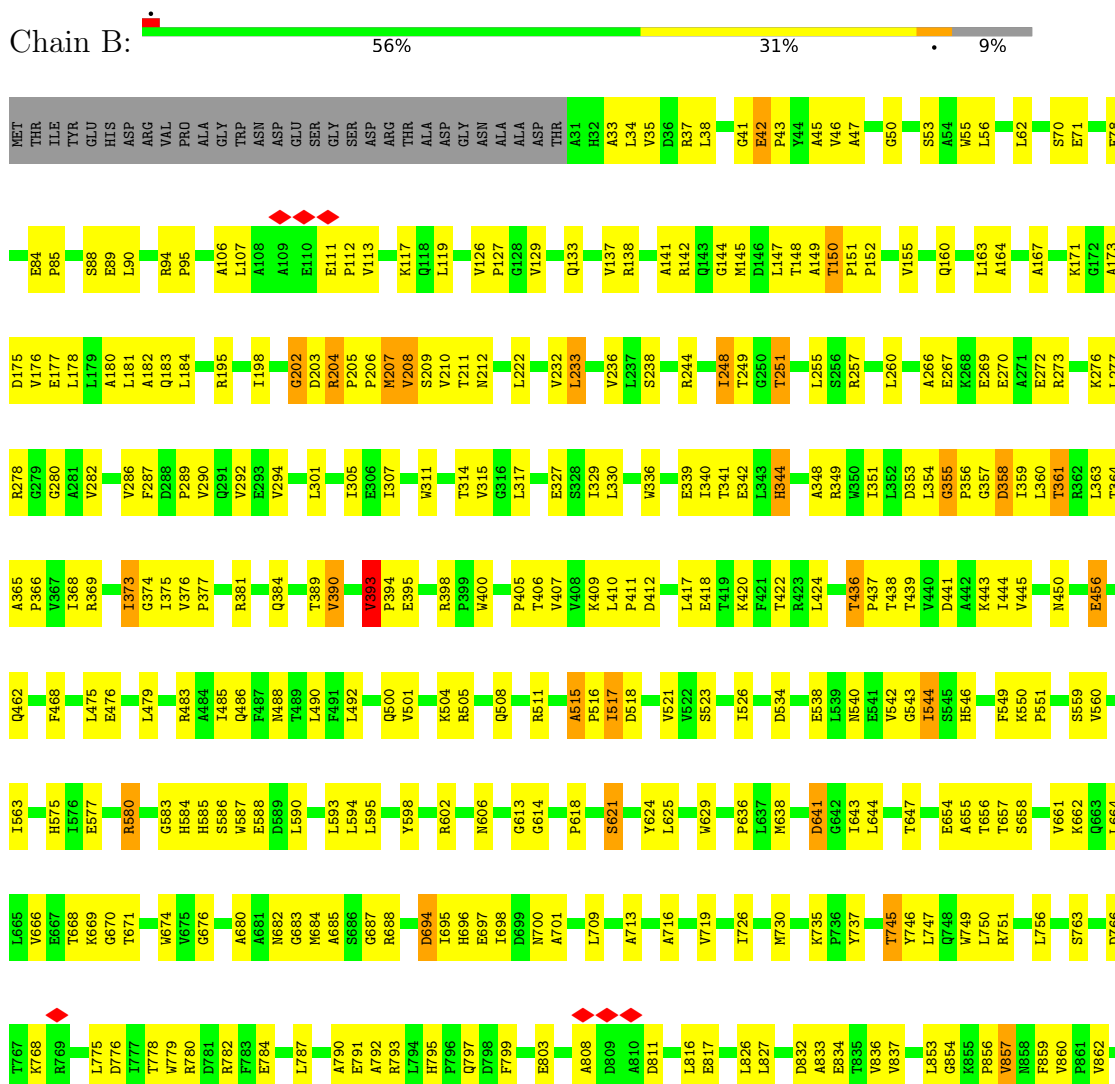
Chain A: 56% 32% 9%

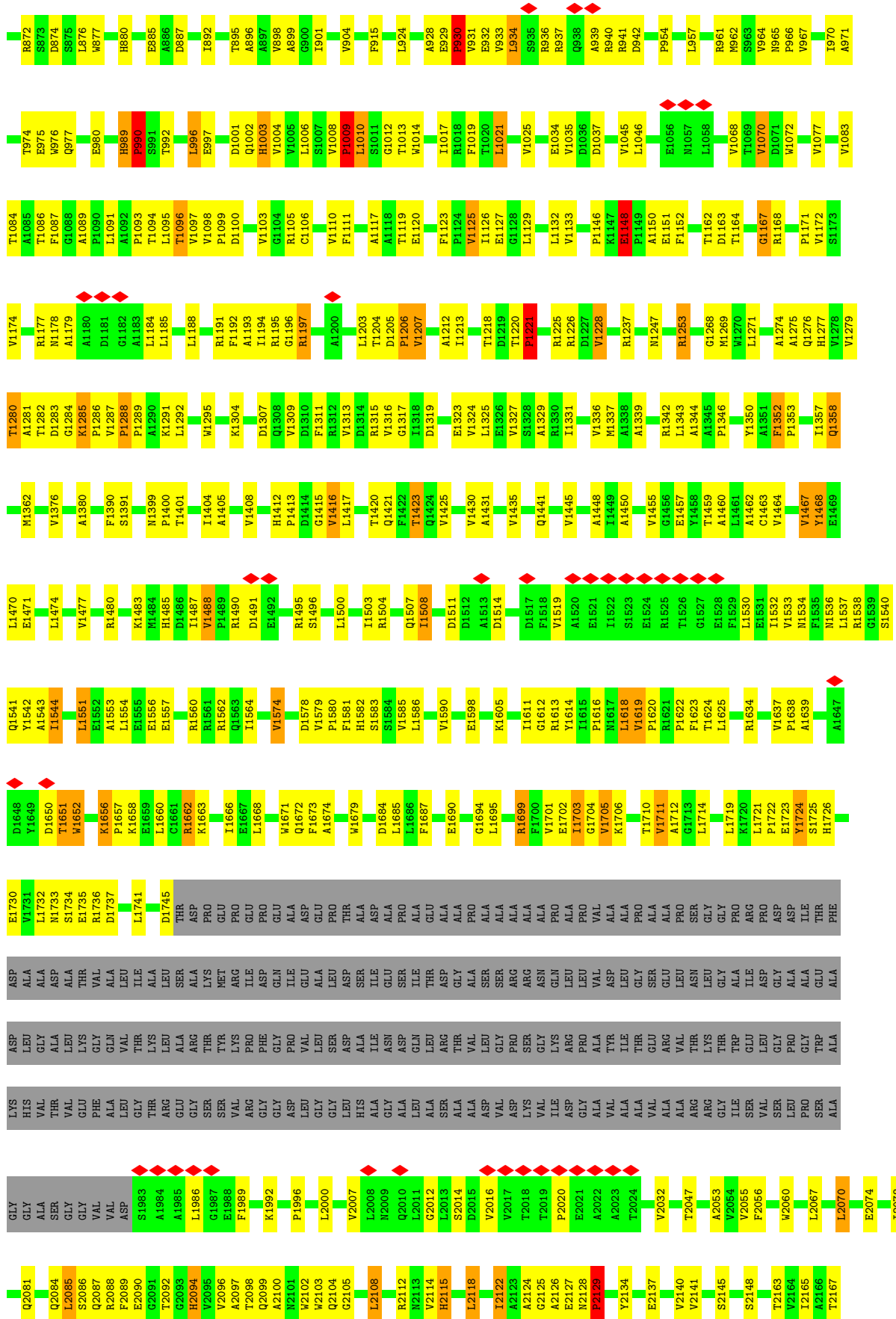


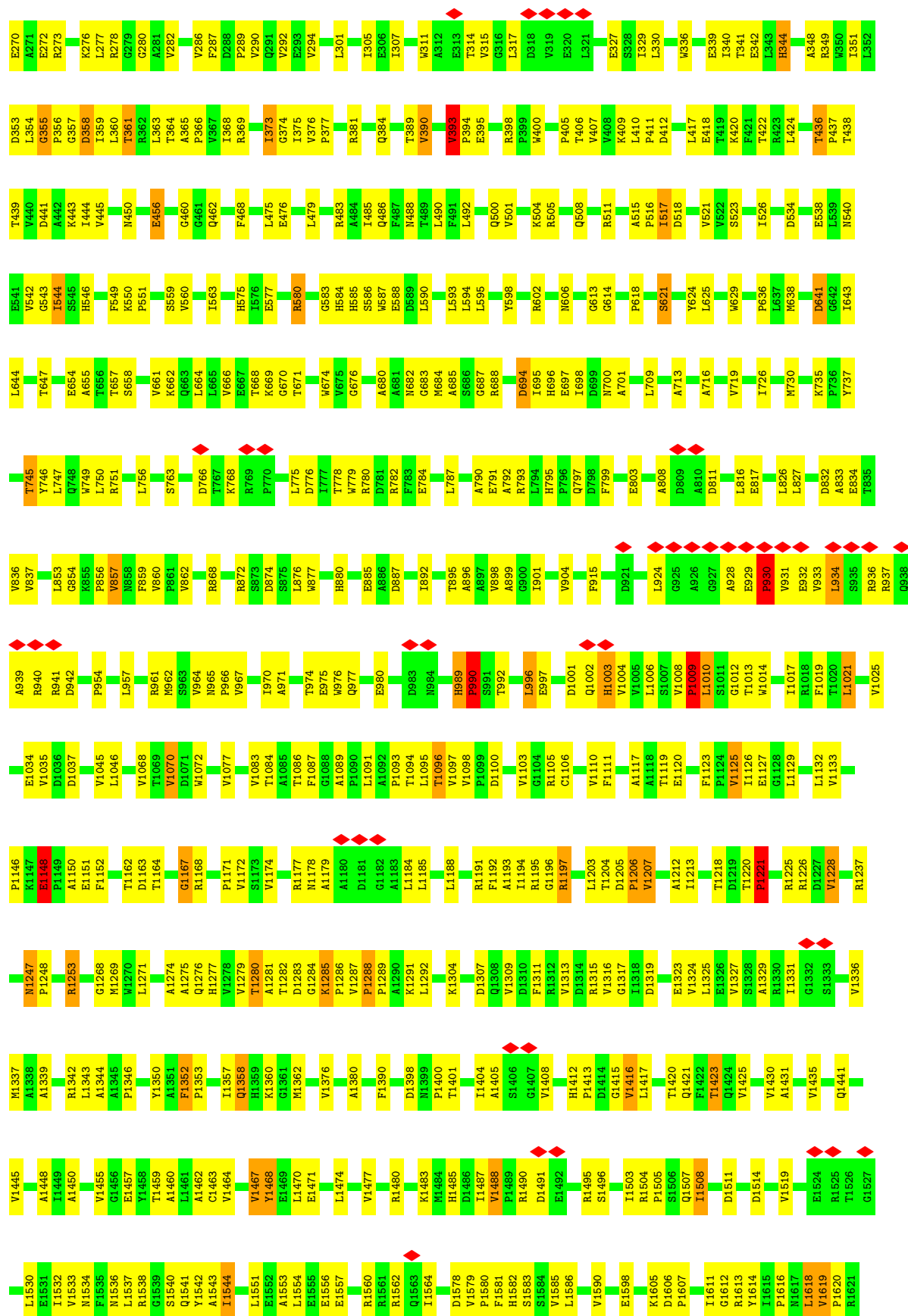
Q2582	Y2472	P2593	L2274	K2166	Q2084	ALA	ALA	ALA	PHE	R1634	M1536	V1464	F1352
F2583	R2478	L2394	I2277	T2167	L2085	GLY	ASP	ASP	ASP	V1637	L1537	V1467	P1353
P2584	M2481	T2395	I2282	R2170	S2086	ALA	ALA	ALA	ALA	P1638	I1357	Y1468	I1357
E2586	E2482	L2398	D2282	D2173	Q2087	SER	ALA	ALA	ALA	A1639	G1539	Y1469	Q1358
R2591	V2483	L2401	R2286	D2174	R2088	GLY	LEU	LEU	ALA	D1650	Q1541	L1470	M1362
P2592	L2487	K2402	L2287	R2175	F2089	GLY	LYS	THR	THR	T1651	Y1542	E1471	M1362
L2593	L2487	K2403	H2288	L2176	E2090	VAL	GLY	VAL	VAL	R1736	A1543	E1471	M1362
P2594	V2492	D2404	G2091	T2092	G2091	ALA	GLN	ALA	ALA	V1652	I1544	L1474	V1376
D2595	L2495	K2405	G2093	K2180	G2093	THR	THR	THR	THR	K1656	A1549	V1477	A1390
L2496	L2495	H2094	G2093	R2188	H2094	LYS	LYS	LYS	LYS	P1657	G1550	V1477	D1391
M2501	P2501	L2408	V2096	F2189	V2096	LEU	LEU	LEU	LEU	K1658	L1551	R1480	F1390
V2502	V2502	A2409	A2097	F2189	A2097	ALA	ALA	SER	SER	E1659	E1552	R1480	S1391
K2503	K2503	K2412	T2192	T2192	T2098	ARG	ARG	ALA	ALA	C1660	A1553	K1483	F1390
D2504	D2504	L2193	L2193	L2193	Q2099	THR	THR	LYS	LYS	C1661	L1554	M1484	S1391
E2505	E2505	M2299	W2195	W2195	SER	TVR	MET	LYS	LYS	R1662	L1554	H1485	P1400
W2512	W2512	K2416	W2102	W2102	A2100	VAL	VAL	ARG	ARG	PRO	E1555	D1486	T1401
Y2513	Y2513	S2417	W2196	W2196	A2100	PRO	PRO	ILE	ILE	I1666	E1556	I1487	P1400
D2514	D2514	G2418	F2197	F2197	W2101	PHE	PHE	ASP	ASP	I1667	E1557	V1488	T1401
T2515	T2515	K2310	A2198	A2198	W2102	GLY	GLY	GLN	GLN	L1668	R1560	P1489	I1404
E2516	E2516	S2311	Q2104	Q2104	G2105	PRO	PRO	ILE	ILE	W1671	R1561	R1490	A1405
L2520	L2520	K2319	G2105	G2105	L2000	VAL	VAL	GLU	GLU	Q1672	R1562	D1491	V1408
Y2521	Y2521	L2108	L2108	L2108	V2007	GLY	GLY	SER	SER	F1673	I1563	E1492	H1412
V2522	V2522	A2109	A2109	A2109	L2008	ASP	ASP	ASP	ASP	A1674	T1564	R1495	P1413
E2523	E2523	A2110	A2110	A2110	W2009	ALA	ALA	SER	SER	W1679	I1565	S1496	D1414
C2524	C2524	G2111	G2111	G2111	I2010	ILE	ILE	ILE	ILE	ALA	G1566	N1497	G1415
E2525	E2525	R2112	R2112	R2112	L2011	ALA	ALA	GLU	GLU	ALA	D1578	T1503	L1417
C2526	C2526	W2114	W2114	W2114	G2012	GLN	GLN	ASP	ASP	ALA	D1579	T1504	T1420
L2527	L2527	H2115	H2115	H2115	S2014	LEU	LEU	THR	THR	GLU	P1580	P1505	Q1421
Y2528	Y2528	L2118	L2118	L2118	D2015	ARG	ARG	GLY	GLY	F1687	F1581	S1506	F1422
R2529	R2529	L2122	L2122	L2122	W2016	ALA	ALA	VAL	VAL	E1690	S1582	Q1507	T1423
P2531	P2531	A2123	A2123	A2123	V2017	ASP	ASP	LEU	SER	G1694	S1584	I1508	Q1424
V2532	V2532	G2125	G2125	G2125	W2020	GLY	GLY	PRO	SER	L1695	V1585	D1509	V1425
E2533	E2533	A2126	A2126	A2126	E2021	PRO	PRO	ARG	ARG	ALA	L1586	L1510	V1430
R2541	R2541	E2127	E2127	E2127	V2032	ILE	ILE	ASN	ASN	R1699	V1590	D1511	A1431
F2543	F2543	N2128	N2128	N2128	T2047	LYS	LYS	GLN	GLN	V1700	E1598	D1514	V1435
T2549	T2549	P2129	P2129	P2129	A2053	ARG	ARG	LEU	LEU	E1702	K1605	D1517	Q1441
D2550	D2550	G2130	G2130	G2130	V2054	VAL	VAL	VAL	VAL	K1704	T1611	F1518	V1445
P2551	P2551	K2131	K2131	K2131	V2055	ALA	ALA	THR	THR	V1705	G1612	V1519	V1445
D2552	D2552	Y2134	Y2134	Y2134	F2056	VAL	VAL	GLU	SER	K1706	R1613	A1520	A1448
L2553	L2553	E2137	E2137	E2137	D2057	ARG	ARG	ARG	GLU	T1710	Y1614	E1521	I1449
A2554	A2554	R2255	R2255	R2255	D2058	VAL	VAL	VAL	LEU	V1711	T1615	I1522	A1450
L2557	L2557	K2261	K2261	K2261	R2059	THR	THR	THR	ASN	A1712	N1617	S1523	V1455
P2566	P2566	V2140	V2140	V2140	V2060	LYS	LYS	LYS	LEU	L1714	G1618	E1524	G1456
T2567	T2567	V2141	V2141	V2141	L2067	THR	THR	THR	GLY	L1714	N1617	R1525	E1457
F2568	F2568	S2145	S2145	S2145	L2067	ILE	ILE	TRP	ALA	L1721	V1619	G1527	Y1458
M2570	M2570	S2146	S2146	S2146	L2070	GLU	GLU	GLU	ILE	P1620	P1620	T1526	G1527
R2571	R2571	S2148	S2148	S2148	E2074	LEU	LEU	LEU	ASP	R1621	R1621	E1528	Y1458
V2572	V2572	T2163	T2163	T2163	L2078	GLY	GLY	GLY	GLY	E1723	P1622	A1460	T1459
L2573	L2573	V2164	V2164	V2164	Q2081	PRO	PRO	ALA	ALA	Y1724	F1623	L1461	L1460
H2574	H2574	I2165	I2165	I2165		TRP	TRP	GLU	GLU	S1725	T1624	F1529	L1461
										H1726	L1625	L1530	C1463
												I1532	I1532
												V1533	V1533
												N1534	N1534
												F1535	F1535



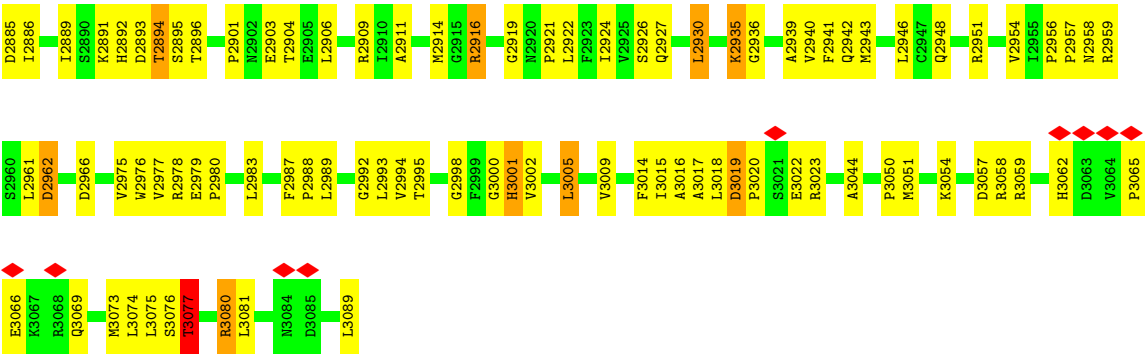
• Molecule 1: TYPE-I FATTY ACID SYNTHASE







R2802	H2721	I2549	V2353	W2249	Y2134	D2057	ALA	GLU	A1712	P1622
D2805	V2722	D2550	S2354	S2250	Y2134	D2058	ALA	LEU	G1713	F1623
R2806	M2723	P2551	E2358	E2251	E2137	W2060	ARG	ASN	L1714	T1624
R2807	Q2724	D2552	E2358	E2252	E2137	W2060	ARG	LEU	L1714	L1625
R2808	Q2725	H2553	V2361	R2255	V2140	L2067	ILE	GLY	L1719	F1629
R2809	N2554	A2554	W2369	R2260	V2141	L2070	SER	ALA	K1720	I1633
G2810	I2555	S2555	M2372	K2261	T2163	E2074	VAL	ARG	L1721	I1633
F2811	L2557	L2557	M2372	K2261	V2164	E2074	SER	ASP	P1722	R1634
L2812	L2558	L2558	M2372	W2265	I2165	E2074	PRO	ALA	Y1724	Y1637
Q2815	L2563	L2563	L2376	W2265	I2166	L2078	SER	THR	H1726	P1638
G2818	F2567	F2567	W2461	Q2268	A2167	D2079	ALA	GLU	E1730	A1639
T2819	T2666	T2666	V2462	R2269	T2167	D2079	GLY	ASP	V1731	D1650
F2820	T2667	T2667	V2462	R2269	T2167	D2079	GLY	ALA	L1732	T1651
L2821	E2668	E2668	V2462	R2269	T2167	D2079	ALA	ALA	N1733	H1652
L2822	L2669	L2669	D2392	L2270	R2170	Q2081	SER	LEU	N1733	N1734
L2823	M2670	M2670	D2392	L2270	R2170	Q2081	GLY	ALA	S1734	E1735
A2824	M2671	M2671	D2392	L2270	R2170	Q2081	VAL	THR	E1735	P1657
R2824	L2672	L2672	T2395	L2274	D2173	Q2084	GLY	LEU	D1737	K1656
G2827	L2673	L2673	T2395	L2274	D2173	Q2084	VAL	GLN	L1741	K1658
L2828	H2674	H2674	L2398	L2277	R2175	L2085	THR	LEU	L1741	E1659
E2829	P2675	P2675	L2398	L2277	R2175	L2085	THR	LEU	D1745	L1660
K2830	F2581	F2581	L2398	L2277	R2175	L2085	THR	LEU	THR	K1662
M2831	Q2582	Q2582	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
G2832	F2583	F2583	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2833	D2584	D2584	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
P2834	P2585	P2585	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
V2835	E2586	E2586	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
Q2843	A2591	A2591	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
S2844	R2592	R2592	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
A2846	L2593	L2593	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
D2847	M2594	M2594	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
G2848	P2595	P2595	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
I2853	S2596	S2596	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
P2854	T2597	T2597	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
A2855	Q2598	Q2598	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
P2856	K2599	K2599	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
G2857	R2603	R2603	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2858	R2610	R2610	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
G2859	V2611	V2611	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
A2860	P2612	P2612	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
G2861	R2613	R2613	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2865	K2614	K2614	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
T2866	L2617	L2617	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
D2768	R2618	R2618	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
D2769	R2619	R2619	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2770	R2620	R2620	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2771	V2621	V2621	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2772	G2622	G2622	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2773	A2623	A2623	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2774	Q2624	Q2624	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2775	L2625	L2625	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2776	P2630	P2630	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2777	D2631	D2631	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2778	T2632	T2632	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2779	V2633	V2633	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2780	D2634	D2634	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2781	R2635	R2635	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2782	T2636	T2636	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2783	V2637	V2637	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2784	D2638	D2638	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2785	T2639	T2639	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2786	V2640	V2640	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2787	D2641	D2641	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2788	T2642	T2642	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2789	V2643	V2643	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2790	D2644	D2644	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2791	T2645	T2645	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2792	V2646	V2646	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2793	D2647	D2647	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2794	T2648	T2648	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2795	V2649	V2649	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2796	D2650	D2650	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2797	T2651	T2651	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2798	V2652	V2652	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2799	D2653	D2653	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2800	T2654	T2654	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2801	V2655	V2655	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2802	D2656	D2656	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2803	T2657	T2657	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2804	V2658	V2658	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2805	D2659	D2659	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2806	T2660	T2660	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2807	V2661	V2661	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2808	D2662	D2662	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2809	T2663	T2663	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2810	V2664	V2664	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2811	D2665	D2665	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2812	T2666	T2666	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2813	V2667	V2667	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2814	D2668	D2668	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2815	T2669	T2669	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2816	V2670	V2670	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2817	D2671	D2671	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2818	T2672	T2672	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2819	V2673	V2673	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2820	D2674	D2674	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2821	T2675	T2675	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2822	V2676	V2676	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2823	D2677	D2677	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2824	T2678	T2678	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2825	V2679	V2679	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2826	D2680	D2680	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2827	T2681	T2681	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2828	V2682	V2682	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2829	D2683	D2683	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2830	T2684	T2684	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2831	V2685	V2685	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2832	D2686	D2686	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2833	T2687	T2687	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2834	V2688	V2688	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2835	D2689	D2689	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2836	T2690	T2690	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2837	V2691	V2691	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2838	D2692	D2692	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2839	T2693	T2693	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2840	V2694	V2694	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2841	D2695	D2695	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2842	T2696	T2696	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2843	V2697	V2697	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2844	D2698	D2698	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2845	T2699	T2699	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2846	V2700	V2700	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2847	D2701	D2701	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2848	T2702	T2702	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2849	V2703	V2703	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2850	D2704	D2704	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2851	T2705	T2705	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2852	V2706	V2706	L2398	L2277	R2175	L2085	THR	LEU	THR	K1663
L2										



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	9136	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	Not provided	
Minimum defocus (nm)	1800	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	59000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	9.063	Depositor
Minimum map value	-2.149	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	1.000	Depositor
Recommended contour level	2	Depositor
Map size ($\text{\AA}$)	456.0, 456.0, 456.0	wwPDB
Map dimensions	200, 200, 200	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	2.28, 2.28, 2.28	Depositor

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: FMN

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.45	18/21335 (0.1%)	0.90	56/29037 (0.2%)
1	B	0.45	18/21335 (0.1%)	0.90	62/29037 (0.2%)
1	C	0.45	18/21335 (0.1%)	0.90	60/29037 (0.2%)
1	D	0.46	18/18511 (0.1%)	0.88	47/25179 (0.2%)
1	E	0.45	18/21335 (0.1%)	0.90	61/29037 (0.2%)
1	F	0.45	18/21335 (0.1%)	0.89	59/29037 (0.2%)
All	All	0.45	108/125186 (0.1%)	0.89	345/170364 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	5
1	B	0	5
1	C	0	5
1	D	0	2
1	E	0	5
1	F	0	5
All	All	0	27

All (108) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	1003	HIS	CB-CG	-5.84	1.42	1.50
1	D	2094	HIS	CB-CG	-5.82	1.42	1.50
1	B	989	HIS	CB-CG	-5.78	1.42	1.50
1	A	2094	HIS	CB-CG	-5.78	1.42	1.50
1	A	996	LEU	CB-CG	-5.77	1.42	1.53
1	A	989	HIS	CB-CG	-5.77	1.42	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	989	HIS	CB-CG	-5.77	1.42	1.50
1	F	2094	HIS	CB-CG	-5.76	1.42	1.50
1	C	2115	HIS	CB-CG	-5.76	1.42	1.50
1	B	2115	HIS	CB-CG	-5.76	1.42	1.50
1	D	1003	HIS	CB-CG	-5.76	1.42	1.50
1	C	1003	HIS	CB-CG	-5.76	1.42	1.50
1	C	2094	HIS	CB-CG	-5.76	1.42	1.50
1	E	989	HIS	CB-CG	-5.76	1.42	1.50
1	B	1003	HIS	CB-CG	-5.76	1.42	1.50
1	E	2435	LEU	CB-CG	-5.75	1.42	1.53
1	A	2435	LEU	CB-CG	-5.75	1.42	1.53
1	F	996	LEU	CB-CG	-5.74	1.42	1.53
1	D	2122	ILE	CB-CG1	-5.74	1.42	1.53
1	E	2094	HIS	CB-CG	-5.74	1.42	1.50
1	C	989	HIS	CB-CG	-5.74	1.42	1.50
1	B	2094	HIS	CB-CG	-5.73	1.42	1.50
1	E	1003	HIS	CB-CG	-5.73	1.42	1.50
1	F	2435	LEU	CB-CG	-5.73	1.42	1.53
1	D	996	LEU	CB-CG	-5.73	1.42	1.53
1	E	996	LEU	CB-CG	-5.73	1.42	1.53
1	D	2115	HIS	CB-CG	-5.73	1.42	1.50
1	D	2435	LEU	CB-CG	-5.73	1.42	1.53
1	B	996	LEU	CB-CG	-5.73	1.42	1.53
1	C	996	LEU	CB-CG	-5.73	1.42	1.53
1	F	2115	HIS	CB-CG	-5.72	1.42	1.50
1	A	934	LEU	CB-CG	-5.72	1.42	1.53
1	B	2085	LEU	CB-CG	-5.71	1.42	1.53
1	A	1003	HIS	CB-CG	-5.71	1.42	1.50
1	B	1203	LEU	CB-CG	-5.70	1.42	1.53
1	D	2432	ILE	CB-CG1	-5.70	1.42	1.53
1	C	2118	LEU	CB-CG	-5.70	1.42	1.53
1	A	2108	LEU	CB-CG	-5.70	1.42	1.53
1	C	2085	LEU	CB-CG	-5.70	1.42	1.53
1	D	1203	LEU	CB-CG	-5.70	1.42	1.53
1	B	2108	LEU	CB-CG	-5.70	1.42	1.53
1	B	2435	LEU	CB-CG	-5.70	1.42	1.53
1	E	2108	LEU	CB-CG	-5.69	1.42	1.53
1	A	1203	LEU	CB-CG	-5.69	1.42	1.53
1	A	2115	HIS	CB-CG	-5.69	1.42	1.50
1	B	1213	ILE	CB-CG1	-5.69	1.42	1.53
1	B	2432	ILE	CB-CG1	-5.69	1.42	1.53
1	C	2108	LEU	CB-CG	-5.69	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	2435	LEU	CB-CG	-5.69	1.42	1.53
1	E	1203	LEU	CB-CG	-5.68	1.42	1.53
1	F	1203	LEU	CB-CG	-5.68	1.42	1.53
1	E	1213	ILE	CB-CG1	-5.68	1.42	1.53
1	E	2115	HIS	CB-CG	-5.68	1.42	1.50
1	B	934	LEU	CB-CG	-5.68	1.42	1.53
1	E	2432	ILE	CB-CG1	-5.68	1.42	1.53
1	D	934	LEU	CB-CG	-5.68	1.42	1.53
1	D	1213	ILE	CB-CG1	-5.68	1.42	1.53
1	A	2118	LEU	CB-CG	-5.68	1.42	1.53
1	D	989	HIS	CB-CG	-5.67	1.42	1.50
1	F	2118	LEU	CB-CG	-5.67	1.42	1.53
1	A	2432	ILE	CB-CG1	-5.67	1.42	1.53
1	E	2085	LEU	CB-CG	-5.67	1.42	1.53
1	F	934	LEU	CB-CG	-5.67	1.42	1.53
1	D	2085	LEU	CB-CG	-5.67	1.42	1.53
1	F	2085	LEU	CB-CG	-5.67	1.42	1.53
1	A	1213	ILE	CB-CG1	-5.67	1.42	1.53
1	F	2122	ILE	CB-CG1	-5.67	1.42	1.53
1	B	2122	ILE	CB-CG1	-5.66	1.42	1.53
1	C	2122	ILE	CB-CG1	-5.66	1.42	1.53
1	A	2122	ILE	CB-CG1	-5.66	1.42	1.53
1	D	2108	LEU	CB-CG	-5.66	1.42	1.53
1	D	2118	LEU	CB-CG	-5.65	1.42	1.53
1	E	2453	LEU	CB-CG	-5.65	1.42	1.53
1	F	1213	ILE	CB-CG1	-5.65	1.42	1.53
1	F	2108	LEU	CB-CG	-5.65	1.42	1.53
1	B	2118	LEU	CB-CG	-5.65	1.42	1.53
1	C	934	LEU	CB-CG	-5.65	1.42	1.53
1	A	2085	LEU	CB-CG	-5.65	1.42	1.53
1	B	2078	ILE	CB-CG1	-5.64	1.42	1.53
1	E	934	LEU	CB-CG	-5.64	1.42	1.53
1	C	1203	LEU	CB-CG	-5.64	1.42	1.53
1	F	2432	ILE	CB-CG1	-5.64	1.42	1.53
1	D	2453	LEU	CB-CG	-5.64	1.42	1.53
1	D	2078	ILE	CB-CG1	-5.63	1.42	1.53
1	E	2118	LEU	CB-CG	-5.63	1.42	1.53
1	C	2432	ILE	CB-CG1	-5.63	1.42	1.53
1	C	2453	LEU	CB-CG	-5.63	1.42	1.53
1	B	2453	LEU	CB-CG	-5.62	1.42	1.53
1	A	2453	LEU	CB-CG	-5.61	1.42	1.53
1	E	2122	ILE	CB-CG1	-5.61	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	2078	ILE	CB-CG1	-5.61	1.42	1.53
1	C	1213	ILE	CB-CG1	-5.61	1.42	1.53
1	F	2453	LEU	CB-CG	-5.60	1.42	1.53
1	F	1010	LEU	CB-CG	-5.59	1.42	1.53
1	A	2078	ILE	CB-CG1	-5.59	1.42	1.53
1	F	2078	ILE	CB-CG1	-5.59	1.42	1.53
1	B	1006	LEU	CB-CG	-5.57	1.42	1.53
1	C	1006	LEU	CB-CG	-5.57	1.42	1.53
1	C	2078	ILE	CB-CG1	-5.56	1.42	1.53
1	D	1006	LEU	CB-CG	-5.56	1.42	1.53
1	A	1006	LEU	CB-CG	-5.55	1.42	1.53
1	C	1010	LEU	CB-CG	-5.54	1.42	1.53
1	B	1010	LEU	CB-CG	-5.52	1.42	1.53
1	D	1010	LEU	CB-CG	-5.51	1.42	1.53
1	E	1006	LEU	CB-CG	-5.49	1.42	1.53
1	E	1010	LEU	CB-CG	-5.48	1.42	1.53
1	F	1006	LEU	CB-CG	-5.48	1.42	1.53
1	A	1010	LEU	CB-CG	-5.48	1.42	1.53

All (345) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2438	PRO	N-CA-CB	13.70	110.86	103.19
1	B	2438	PRO	N-CA-CB	13.62	110.82	103.19
1	D	2438	PRO	N-CA-CB	13.55	110.78	103.19
1	E	2438	PRO	N-CA-CB	13.53	110.77	103.19
1	F	2438	PRO	N-CA-CB	13.50	110.75	103.19
1	C	2438	PRO	N-CA-CB	13.45	110.72	103.19
1	B	151	PRO	N-CA-C	10.66	123.71	110.70
1	C	151	PRO	N-CA-C	10.63	123.67	110.70
1	A	151	PRO	N-CA-C	10.62	123.66	110.70
1	E	151	PRO	N-CA-C	10.61	123.64	110.70
1	F	151	PRO	N-CA-C	10.25	123.20	110.70
1	F	1206	PRO	N-CA-CB	8.93	110.90	101.88
1	C	1206	PRO	N-CA-CB	8.88	110.84	101.88
1	B	1206	PRO	N-CA-CB	8.88	110.84	101.88
1	E	1206	PRO	N-CA-CB	8.86	110.83	101.88
1	D	1206	PRO	N-CA-CB	8.82	110.79	101.88
1	A	1206	PRO	N-CA-CB	8.77	110.74	101.88
1	E	204	ARG	CA-C-N	8.67	129.31	120.38
1	E	204	ARG	C-N-CA	8.67	129.31	120.38
1	A	204	ARG	CA-C-N	8.65	129.29	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	204	ARG	C-N-CA	8.65	129.29	120.38
1	C	204	ARG	CA-C-N	8.62	129.25	120.38
1	C	204	ARG	C-N-CA	8.62	129.25	120.38
1	F	204	ARG	CA-C-N	8.61	129.25	120.38
1	F	204	ARG	C-N-CA	8.61	129.25	120.38
1	B	204	ARG	CA-C-N	8.61	129.25	120.38
1	B	204	ARG	C-N-CA	8.61	129.25	120.38
1	E	1619	VAL	CA-C-N	8.20	127.86	119.82
1	E	1619	VAL	C-N-CA	8.20	127.86	119.82
1	F	1619	VAL	CA-C-N	8.21	127.86	119.82
1	F	1619	VAL	C-N-CA	8.21	127.86	119.82
1	B	1619	VAL	CA-C-N	8.19	127.84	119.82
1	B	1619	VAL	C-N-CA	8.19	127.84	119.82
1	A	1619	VAL	CA-C-N	8.17	127.83	119.82
1	A	1619	VAL	C-N-CA	8.17	127.83	119.82
1	D	1619	VAL	CA-C-N	8.15	127.81	119.82
1	D	1619	VAL	C-N-CA	8.15	127.81	119.82
1	C	1619	VAL	CA-C-N	8.13	127.79	119.82
1	C	1619	VAL	C-N-CA	8.13	127.79	119.82
1	E	930	PRO	N-CA-CB	8.04	111.69	103.25
1	C	930	PRO	N-CA-CB	8.03	111.68	103.25
1	C	2439	PRO	N-CA-CB	8.02	110.49	103.27
1	F	930	PRO	N-CA-CB	8.01	111.66	103.25
1	A	930	PRO	N-CA-CB	8.01	111.66	103.25
1	D	930	PRO	N-CA-CB	8.00	111.65	103.25
1	B	930	PRO	N-CA-CB	8.00	111.65	103.25
1	D	2439	PRO	N-CA-CB	7.97	110.44	103.27
1	A	2439	PRO	N-CA-CB	7.92	110.39	103.27
1	F	2439	PRO	N-CA-CB	7.88	110.36	103.27
1	E	2439	PRO	N-CA-CB	7.87	110.36	103.27
1	B	2439	PRO	N-CA-CB	7.87	110.35	103.27
1	A	42	GLU	CA-C-N	7.84	128.28	120.52
1	A	42	GLU	C-N-CA	7.84	128.28	120.52
1	F	42	GLU	CA-C-N	7.83	128.27	120.52
1	F	42	GLU	C-N-CA	7.83	128.27	120.52
1	B	42	GLU	CA-C-N	7.80	128.24	120.52
1	B	42	GLU	C-N-CA	7.80	128.24	120.52
1	C	42	GLU	CA-C-N	7.75	128.20	120.52
1	C	42	GLU	C-N-CA	7.75	128.20	120.52
1	A	1288	PRO	N-CA-C	7.73	120.13	110.70
1	D	1288	PRO	N-CA-C	7.72	120.12	110.70
1	F	1288	PRO	N-CA-C	7.72	120.12	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	42	GLU	CA-C-N	7.71	128.16	120.52
1	E	42	GLU	C-N-CA	7.71	128.16	120.52
1	E	1288	PRO	N-CA-C	7.70	120.09	110.70
1	C	1288	PRO	N-CA-C	7.67	120.06	110.70
1	B	1288	PRO	N-CA-C	7.67	120.05	110.70
1	A	355	GLY	CA-C-N	7.32	127.35	119.89
1	A	355	GLY	C-N-CA	7.32	127.35	119.89
1	B	355	GLY	CA-C-N	7.29	127.32	119.89
1	B	355	GLY	C-N-CA	7.29	127.32	119.89
1	E	355	GLY	CA-C-N	7.25	127.28	119.89
1	E	355	GLY	C-N-CA	7.25	127.28	119.89
1	C	355	GLY	CA-C-N	7.22	127.25	119.89
1	C	355	GLY	C-N-CA	7.22	127.25	119.89
1	F	355	GLY	CA-C-N	7.21	127.25	119.89
1	F	355	GLY	C-N-CA	7.21	127.25	119.89
1	A	398	ARG	CA-C-N	7.07	128.68	119.84
1	A	398	ARG	C-N-CA	7.07	128.68	119.84
1	D	2428	PRO	N-CA-CB	7.06	110.66	103.25
1	E	2444	PRO	N-CA-CB	7.05	110.65	103.25
1	A	2444	PRO	N-CA-CB	7.03	110.63	103.25
1	F	2444	PRO	N-CA-CB	7.03	110.63	103.25
1	C	2444	PRO	N-CA-CB	7.03	110.63	103.25
1	B	2444	PRO	N-CA-CB	7.02	110.62	103.25
1	E	398	ARG	CA-C-N	7.02	128.61	119.84
1	E	398	ARG	C-N-CA	7.02	128.61	119.84
1	B	2428	PRO	N-CA-CB	7.01	110.61	103.25
1	C	2428	PRO	N-CA-CB	7.00	110.60	103.25
1	A	2428	PRO	N-CA-CB	7.00	110.60	103.25
1	D	2444	PRO	N-CA-CB	6.99	110.59	103.25
1	E	2428	PRO	N-CA-CB	6.99	110.59	103.25
1	B	398	ARG	CA-C-N	6.99	128.57	119.84
1	B	398	ARG	C-N-CA	6.99	128.57	119.84
1	F	398	ARG	CA-C-N	6.98	128.57	119.84
1	F	398	ARG	C-N-CA	6.98	128.57	119.84
1	C	398	ARG	CA-C-N	6.98	128.56	119.84
1	C	398	ARG	C-N-CA	6.98	128.56	119.84
1	F	2428	PRO	N-CA-CB	6.95	110.55	103.25
1	D	2446	PRO	N-CA-CB	6.90	110.49	103.25
1	B	2446	PRO	N-CA-CB	6.87	110.47	103.25
1	A	2446	PRO	N-CA-CB	6.87	110.46	103.25
1	F	2446	PRO	N-CA-CB	6.86	110.45	103.25
1	E	2446	PRO	N-CA-CB	6.85	110.44	103.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	2446	PRO	N-CA-CB	6.84	110.44	103.25
1	C	2448	PRO	N-CA-CB	6.77	110.36	103.25
1	A	2448	PRO	N-CA-CB	6.77	110.36	103.25
1	D	2448	PRO	N-CA-CB	6.76	110.35	103.25
1	E	2448	PRO	N-CA-CB	6.76	110.35	103.25
1	F	2448	PRO	N-CA-CB	6.74	110.32	103.25
1	B	2448	PRO	N-CA-CB	6.73	110.32	103.25
1	A	1009	PRO	N-CA-CB	6.72	110.31	103.25
1	E	1352	PHE	CA-C-N	6.70	127.09	119.92
1	E	1352	PHE	C-N-CA	6.70	127.09	119.92
1	A	2853	ILE	CA-C-N	-6.69	112.81	119.56
1	A	2853	ILE	C-N-CA	-6.69	112.81	119.56
1	E	2853	ILE	CA-C-N	-6.67	112.82	119.56
1	E	2853	ILE	C-N-CA	-6.67	112.82	119.56
1	F	1352	PHE	CA-C-N	6.66	127.05	119.92
1	F	1352	PHE	C-N-CA	6.66	127.05	119.92
1	C	1009	PRO	N-CA-CB	6.66	110.24	103.25
1	B	990	PRO	N-CA-CB	6.66	110.24	103.25
1	E	1009	PRO	N-CA-CB	6.65	110.23	103.25
1	C	2853	ILE	CA-C-N	-6.64	112.86	119.56
1	C	2853	ILE	C-N-CA	-6.64	112.86	119.56
1	D	2853	ILE	CA-C-N	-6.64	112.86	119.56
1	D	2853	ILE	C-N-CA	-6.64	112.86	119.56
1	B	2853	ILE	CA-C-N	-6.63	112.86	119.56
1	B	2853	ILE	C-N-CA	-6.63	112.86	119.56
1	F	2853	ILE	CA-C-N	-6.61	112.88	119.56
1	F	2853	ILE	C-N-CA	-6.61	112.88	119.56
1	A	1352	PHE	CA-C-N	6.61	127.00	119.92
1	A	1352	PHE	C-N-CA	6.61	127.00	119.92
1	D	1352	PHE	CA-C-N	6.61	126.99	119.92
1	D	1352	PHE	C-N-CA	6.61	126.99	119.92
1	F	1009	PRO	N-CA-CB	6.61	110.19	103.25
1	B	1009	PRO	N-CA-CB	6.60	110.18	103.25
1	D	1009	PRO	N-CA-CB	6.59	110.17	103.25
1	C	1352	PHE	CA-C-N	6.58	126.96	119.92
1	C	1352	PHE	C-N-CA	6.58	126.96	119.92
1	D	990	PRO	N-CA-CB	6.58	110.15	103.25
1	F	990	PRO	N-CA-CB	6.57	110.14	103.25
1	A	990	PRO	N-CA-CB	6.56	110.14	103.25
1	C	990	PRO	N-CA-CB	6.56	110.14	103.25
1	E	990	PRO	N-CA-CB	6.54	110.11	103.25
1	B	1352	PHE	CA-C-N	6.50	126.88	119.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1352	PHE	C-N-CA	6.50	126.88	119.92
1	F	1221	PRO	N-CA-CB	6.46	110.03	103.25
1	C	1221	PRO	N-CA-CB	6.46	110.03	103.25
1	D	1221	PRO	N-CA-CB	6.44	110.01	103.25
1	B	1221	PRO	N-CA-CB	6.44	110.01	103.25
1	E	1221	PRO	N-CA-CB	6.40	109.97	103.25
1	B	2436	PRO	N-CA-CB	6.39	109.95	103.25
1	E	2436	PRO	N-CA-CB	6.38	109.95	103.25
1	A	1221	PRO	N-CA-CB	6.37	109.94	103.25
1	F	2436	PRO	N-CA-CB	6.37	109.94	103.25
1	A	2436	PRO	N-CA-CB	6.35	109.92	103.25
1	F	3054	LYS	CA-C-N	6.35	126.47	119.87
1	F	3054	LYS	C-N-CA	6.35	126.47	119.87
1	D	2436	PRO	N-CA-CB	6.34	109.90	103.25
1	C	2436	PRO	N-CA-CB	6.33	109.90	103.25
1	C	3054	LYS	CA-C-N	6.29	126.41	119.87
1	C	3054	LYS	C-N-CA	6.29	126.41	119.87
1	E	3054	LYS	CA-C-N	6.25	126.37	119.87
1	E	3054	LYS	C-N-CA	6.25	126.37	119.87
1	A	2129	PRO	N-CA-CB	6.22	110.41	103.44
1	D	3054	LYS	CA-C-N	6.22	126.33	119.87
1	D	3054	LYS	C-N-CA	6.22	126.33	119.87
1	B	3054	LYS	CA-C-N	6.22	126.33	119.87
1	B	3054	LYS	C-N-CA	6.22	126.33	119.87
1	B	1167	GLY	N-CA-C	6.21	118.33	110.38
1	E	1167	GLY	N-CA-C	6.20	118.32	110.38
1	A	3054	LYS	CA-C-N	6.20	126.32	119.87
1	A	3054	LYS	C-N-CA	6.20	126.32	119.87
1	F	1167	GLY	N-CA-C	6.20	118.31	110.38
1	D	1167	GLY	N-CA-C	6.19	118.31	110.38
1	C	2129	PRO	N-CA-CB	6.19	110.37	103.44
1	A	1167	GLY	N-CA-C	6.18	118.30	110.38
1	E	2129	PRO	N-CA-CB	6.18	110.36	103.44
1	C	1167	GLY	N-CA-C	6.17	118.28	110.38
1	F	2129	PRO	N-CA-CB	6.17	110.35	103.44
1	D	2129	PRO	N-CA-CB	6.16	110.34	103.44
1	B	2129	PRO	N-CA-CB	6.15	110.33	103.44
1	B	1656	LYS	N-CA-C	6.09	120.51	112.35
1	E	515	ALA	CA-C-N	6.08	125.78	119.82
1	E	515	ALA	C-N-CA	6.08	125.78	119.82
1	F	1656	LYS	N-CA-C	6.07	120.49	112.35
1	C	1656	LYS	N-CA-C	6.06	120.47	112.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	515	ALA	CA-C-N	6.06	125.76	119.82
1	C	515	ALA	C-N-CA	6.06	125.76	119.82
1	A	1656	LYS	N-CA-C	6.03	120.43	112.35
1	D	1656	LYS	N-CA-C	6.02	120.41	112.35
1	F	515	ALA	CA-C-N	6.01	125.71	119.82
1	F	515	ALA	C-N-CA	6.01	125.71	119.82
1	D	515	ALA	CA-C-N	6.00	125.70	119.82
1	D	515	ALA	C-N-CA	6.00	125.70	119.82
1	E	1656	LYS	N-CA-C	5.99	120.37	112.35
1	B	515	ALA	CA-C-N	5.96	125.67	119.82
1	B	515	ALA	C-N-CA	5.96	125.67	119.82
1	A	515	ALA	CA-C-N	5.90	125.60	119.82
1	A	515	ALA	C-N-CA	5.90	125.60	119.82
1	A	2855	ALA	CA-C-N	5.79	126.27	120.14
1	A	2855	ALA	C-N-CA	5.79	126.27	120.14
1	E	2855	ALA	CA-C-N	5.78	126.27	120.14
1	E	2855	ALA	C-N-CA	5.78	126.27	120.14
1	E	492	LEU	N-CA-C	5.78	118.07	111.02
1	A	492	LEU	N-CA-C	5.78	118.07	111.02
1	C	2855	ALA	CA-C-N	5.77	126.26	120.14
1	C	2855	ALA	C-N-CA	5.77	126.26	120.14
1	F	492	LEU	N-CA-C	5.76	118.05	111.02
1	F	2855	ALA	CA-C-N	5.76	126.24	120.14
1	F	2855	ALA	C-N-CA	5.76	126.24	120.14
1	C	1207	VAL	N-CA-C	5.75	116.71	107.73
1	D	492	LEU	N-CA-C	5.74	118.03	111.02
1	B	2855	ALA	CA-C-N	5.74	126.23	120.14
1	B	2855	ALA	C-N-CA	5.74	126.23	120.14
1	A	1207	VAL	N-CA-C	5.74	116.68	107.73
1	B	42	GLU	N-CA-C	5.73	116.19	109.60
1	B	492	LEU	N-CA-C	5.73	118.01	111.02
1	D	2855	ALA	CA-C-N	5.72	126.21	120.14
1	D	2855	ALA	C-N-CA	5.72	126.21	120.14
1	E	42	GLU	N-CA-C	5.72	116.18	109.60
1	E	1207	VAL	N-CA-C	5.72	116.66	107.73
1	D	1207	VAL	N-CA-C	5.72	116.65	107.73
1	F	42	GLU	N-CA-C	5.72	116.17	109.60
1	A	42	GLU	N-CA-C	5.72	116.17	109.60
1	C	492	LEU	N-CA-C	5.71	117.99	111.02
1	B	1207	VAL	N-CA-C	5.71	116.63	107.73
1	F	1207	VAL	N-CA-C	5.70	116.62	107.73
1	C	42	GLU	N-CA-C	5.70	116.15	109.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2674	HIS	CA-C-N	5.68	126.06	119.47
1	A	2674	HIS	C-N-CA	5.68	126.06	119.47
1	C	2674	HIS	CA-C-N	5.67	126.04	119.47
1	C	2674	HIS	C-N-CA	5.67	126.04	119.47
1	E	2674	HIS	CA-C-N	5.64	126.02	119.47
1	E	2674	HIS	C-N-CA	5.64	126.02	119.47
1	B	2674	HIS	CA-C-N	5.64	126.02	119.47
1	B	2674	HIS	C-N-CA	5.64	126.02	119.47
1	E	1316	VAL	CB-CA-C	-5.62	106.93	111.71
1	F	2674	HIS	CA-C-N	5.61	125.97	119.47
1	F	2674	HIS	C-N-CA	5.61	125.97	119.47
1	C	1316	VAL	CB-CA-C	-5.59	106.96	111.71
1	D	2674	HIS	CA-C-N	5.58	125.94	119.47
1	D	2674	HIS	C-N-CA	5.58	125.94	119.47
1	A	1316	VAL	CB-CA-C	-5.57	106.98	111.71
1	D	1316	VAL	CB-CA-C	-5.55	107.00	111.71
1	F	1316	VAL	CB-CA-C	-5.54	107.00	111.71
1	B	1316	VAL	CB-CA-C	-5.51	107.03	111.71
1	C	2731	GLY	N-CA-C	5.42	119.30	112.79
1	C	3077	THR	N-CA-C	5.42	116.87	111.07
1	B	942	ASP	N-CA-C	5.42	117.64	109.41
1	F	942	ASP	N-CA-C	5.41	117.63	109.41
1	F	2731	GLY	N-CA-C	5.40	119.27	112.79
1	D	1721	LEU	CA-C-N	-5.38	113.48	119.19
1	D	1721	LEU	C-N-CA	-5.38	113.48	119.19
1	E	3077	THR	N-CA-C	5.38	116.82	111.07
1	E	942	ASP	N-CA-C	5.38	117.58	109.41
1	A	942	ASP	N-CA-C	5.37	117.58	109.41
1	E	1721	LEU	CA-C-N	-5.37	113.50	119.19
1	E	1721	LEU	C-N-CA	-5.37	113.50	119.19
1	C	1721	LEU	CA-C-N	-5.36	113.51	119.19
1	C	1721	LEU	C-N-CA	-5.36	113.51	119.19
1	D	942	ASP	N-CA-C	5.36	117.56	109.41
1	B	3077	THR	N-CA-C	5.36	116.81	111.07
1	F	1721	LEU	CA-C-N	-5.36	113.51	119.19
1	F	1721	LEU	C-N-CA	-5.36	113.51	119.19
1	A	2731	GLY	N-CA-C	5.36	119.22	112.79
1	D	3077	THR	N-CA-C	5.35	116.80	111.07
1	A	3077	THR	N-CA-C	5.35	116.79	111.07
1	B	2731	GLY	N-CA-C	5.35	119.21	112.79
1	C	942	ASP	N-CA-C	5.35	117.54	109.41
1	B	1721	LEU	CA-C-N	-5.34	113.53	119.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1721	LEU	C-N-CA	-5.34	113.53	119.19
1	F	3077	THR	N-CA-C	5.33	116.77	111.07
1	D	2731	GLY	N-CA-C	5.33	119.18	112.79
1	E	2731	GLY	N-CA-C	5.32	119.18	112.79
1	A	1721	LEU	CA-C-N	-5.30	113.58	119.19
1	A	1721	LEU	C-N-CA	-5.30	113.58	119.19
1	D	2584	ASP	N-CA-C	5.23	121.37	109.81
1	F	2848	GLY	N-CA-C	5.22	118.09	110.63
1	C	2848	GLY	N-CA-C	5.22	118.09	110.63
1	A	2584	ASP	N-CA-C	5.21	121.32	109.81
1	C	2584	ASP	N-CA-C	5.21	121.31	109.81
1	F	2584	ASP	N-CA-C	5.20	121.31	109.81
1	F	55	TRP	N-CA-C	5.20	117.03	111.36
1	A	55	TRP	N-CA-C	5.20	117.03	111.36
1	B	2584	ASP	N-CA-C	5.20	121.29	109.81
1	A	2848	GLY	N-CA-C	5.19	118.05	110.63
1	B	55	TRP	N-CA-C	5.18	117.01	111.36
1	E	2584	ASP	N-CA-C	5.17	121.24	109.81
1	E	2848	GLY	N-CA-C	5.17	118.02	110.63
1	B	1574	VAL	N-CA-C	5.17	112.98	107.76
1	F	1574	VAL	N-CA-C	5.16	112.97	107.76
1	B	2848	GLY	N-CA-C	5.16	118.00	110.63
1	D	2848	GLY	N-CA-C	5.15	118.00	110.63
1	E	55	TRP	N-CA-C	5.15	116.98	111.36
1	C	55	TRP	N-CA-C	5.15	116.98	111.36
1	E	1574	VAL	N-CA-C	5.13	112.94	107.76
1	F	393	VAL	N-CA-C	5.12	119.95	108.88
1	E	2611	VAL	CA-C-N	5.12	125.36	119.83
1	E	2611	VAL	C-N-CA	5.12	125.36	119.83
1	A	393	VAL	N-CA-C	5.11	119.92	108.88
1	B	393	VAL	N-CA-C	5.11	119.92	108.88
1	E	393	VAL	N-CA-C	5.09	119.88	108.88
1	D	2611	VAL	N-CA-C	5.09	113.44	107.89
1	C	2611	VAL	N-CA-C	5.09	113.44	107.89
1	A	2593	LEU	CA-C-N	5.09	125.12	119.32
1	A	2593	LEU	C-N-CA	5.09	125.12	119.32
1	A	2611	VAL	N-CA-C	5.09	113.44	107.89
1	F	2611	VAL	CA-C-N	5.08	125.32	119.83
1	F	2611	VAL	C-N-CA	5.08	125.32	119.83
1	B	2611	VAL	CA-C-N	5.08	125.32	119.83
1	B	2611	VAL	C-N-CA	5.08	125.32	119.83
1	C	393	VAL	N-CA-C	5.07	119.84	108.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	2611	VAL	N-CA-C	5.07	113.41	107.89
1	D	2611	VAL	CA-C-N	5.06	125.29	119.83
1	D	2611	VAL	C-N-CA	5.06	125.29	119.83
1	D	2593	LEU	CA-C-N	5.05	125.08	119.32
1	D	2593	LEU	C-N-CA	5.05	125.08	119.32
1	F	1003	HIS	CB-CA-C	-5.05	110.36	117.23
1	D	1247	ASN	CA-C-N	5.05	124.71	119.56
1	D	1247	ASN	C-N-CA	5.05	124.71	119.56
1	C	1247	ASN	CA-C-N	5.05	124.71	119.56
1	C	1247	ASN	C-N-CA	5.05	124.71	119.56
1	B	1247	ASN	CA-C-N	5.04	124.70	119.56
1	B	1247	ASN	C-N-CA	5.04	124.70	119.56
1	C	2611	VAL	CA-C-N	5.04	125.28	119.83
1	C	2611	VAL	C-N-CA	5.04	125.28	119.83
1	F	2611	VAL	N-CA-C	5.04	113.38	107.89
1	A	1003	HIS	CB-CA-C	-5.04	110.38	117.23
1	B	2593	LEU	CA-C-N	5.04	125.06	119.32
1	B	2593	LEU	C-N-CA	5.04	125.06	119.32
1	E	2593	LEU	CA-C-N	5.03	125.06	119.32
1	E	2593	LEU	C-N-CA	5.03	125.06	119.32
1	F	1247	ASN	CA-C-N	5.03	124.69	119.56
1	F	1247	ASN	C-N-CA	5.03	124.69	119.56
1	E	1247	ASN	CA-C-N	5.03	124.69	119.56
1	E	1247	ASN	C-N-CA	5.03	124.69	119.56
1	C	1197	ARG	N-CA-C	5.02	117.79	109.85
1	C	2593	LEU	CA-C-N	5.02	125.05	119.32
1	C	2593	LEU	C-N-CA	5.02	125.05	119.32
1	E	1003	HIS	CB-CA-C	-5.02	110.40	117.23
1	B	1003	HIS	CB-CA-C	-5.01	110.41	117.23
1	B	1197	ARG	N-CA-C	5.00	117.75	109.85
1	B	2611	VAL	N-CA-C	5.00	113.34	107.89

There are no chirality outliers.

All (27) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1148	GLU	Peptide
1	A	150	THR	Peptide
1	A	202	GLY	Peptide
1	A	2584	ASP	Peptide
1	A	357	GLY	Peptide
1	B	1148	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	B	150	THR	Peptide
1	B	202	GLY	Peptide
1	B	2584	ASP	Peptide
1	B	357	GLY	Peptide
1	C	1148	GLU	Peptide
1	C	150	THR	Peptide
1	C	202	GLY	Peptide
1	C	2584	ASP	Peptide
1	C	357	GLY	Peptide
1	D	1148	GLU	Peptide
1	D	2584	ASP	Peptide
1	E	1148	GLU	Peptide
1	E	150	THR	Peptide
1	E	202	GLY	Peptide
1	E	2584	ASP	Peptide
1	E	357	GLY	Peptide
1	F	1148	GLU	Peptide
1	F	150	THR	Peptide
1	F	202	GLY	Peptide
1	F	2584	ASP	Peptide
1	F	357	GLY	Peptide

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	20945	0	20595	915	0
1	B	20945	0	20595	907	0
1	C	20945	0	20595	938	0
1	D	18171	0	17756	796	0
1	E	20945	0	20595	917	0
1	F	20945	0	20594	1059	0
2	A	31	0	19	5	0
2	B	31	0	19	4	0
2	C	31	0	19	4	0
2	D	31	0	19	4	0
2	E	31	0	19	4	0
2	F	31	0	19	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	123082	0	120844	5181	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 21.

All (5181) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1039:ALA:HB2	1:F:1125:VAL:CG1	1.35	1.53
1:F:958:TRP:CH2	1:F:1131:SER:OG	1.76	1.38
1:F:1385:ARG:NH1	1:F:2411:LYS:NZ	1.74	1.36
1:F:953:ALA:CB	1:F:1032:ILE:HD11	1.58	1.33
1:F:1385:ARG:CD	1:F:2411:LYS:HZ3	1.44	1.30
1:F:2407:GLU:O	1:F:2411:LYS:HG3	1.26	1.29
1:F:1385:ARG:HH11	1:F:2411:LYS:CE	1.46	1.28
1:F:953:ALA:CB	1:F:1032:ILE:CD1	2.18	1.21
1:F:513:SER:O	1:F:961:ARG:NH1	1.72	1.19
1:F:1401:THR:HG21	1:C:2286:ARG:NH2	1.57	1.19
1:F:1037:ASP:OD1	1:F:1043:ARG:HG2	1.37	1.18
1:F:1021:LEU:HD22	1:F:1034:GLU:HG3	1.27	1.16
1:F:1038:ALA:O	1:F:1125:VAL:HG12	0.99	1.16
1:F:1039:ALA:CB	1:F:1125:VAL:HG11	1.78	1.14
1:F:1038:ALA:O	1:F:1125:VAL:CG1	1.95	1.13
1:F:1394:HIS:CE1	1:C:2324:LYS:HD3	1.84	1.13
1:E:1013:THR:HG23	1:E:1014:TRP:H	1.15	1.11
1:F:1385:ARG:NH1	1:F:2411:LYS:CE	2.09	1.10
1:A:1013:THR:HG23	1:A:1014:TRP:H	1.15	1.10
1:F:1385:ARG:HD2	1:F:2411:LYS:HZ3	1.16	1.10
1:F:1037:ASP:CG	1:F:1043:ARG:HG2	1.76	1.10
1:F:1385:ARG:HD2	1:F:2411:LYS:NZ	1.66	1.09
1:F:1039:ALA:CB	1:F:1125:VAL:CG1	2.32	1.08
1:F:1042:MET:O	1:F:1044:ALA:N	1.87	1.07
1:D:1013:THR:HG23	1:D:1014:TRP:H	1.15	1.07
1:C:1013:THR:HG23	1:C:1014:TRP:H	1.15	1.07
1:F:1039:ALA:HB2	1:F:1125:VAL:CB	1.83	1.07
1:A:2112:ARG:H	1:A:2115:HIS:CG	1.73	1.07
1:C:2094:HIS:CG	1:C:2096:VAL:HG22	1.90	1.06
1:F:1385:ARG:CZ	1:F:2411:LYS:NZ	2.18	1.06
1:F:953:ALA:HB3	1:F:1032:ILE:HD11	1.33	1.06
1:F:2112:ARG:H	1:F:2115:HIS:CG	1.73	1.06
1:A:2094:HIS:CG	1:A:2096:VAL:HG22	1.90	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2112:ARG:H	1:E:2115:HIS:CG	1.73	1.06
1:B:2094:HIS:CG	1:B:2096:VAL:HG12	1.90	1.06
1:B:2112:ARG:H	1:B:2115:HIS:CG	1.73	1.06
1:C:2112:ARG:H	1:C:2115:HIS:CG	1.73	1.06
1:D:2094:HIS:CG	1:D:2096:VAL:HG12	1.90	1.05
1:F:1013:THR:HG23	1:F:1014:TRP:H	1.15	1.05
1:E:2094:HIS:CG	1:E:2096:VAL:HG12	1.90	1.05
1:F:2094:HIS:CG	1:F:2096:VAL:HG12	1.90	1.04
1:D:2112:ARG:H	1:D:2115:HIS:CG	1.73	1.04
1:F:1394:HIS:HE1	1:C:2324:LYS:CD	1.70	1.04
1:F:953:ALA:HB3	1:F:1032:ILE:CD1	1.85	1.03
1:F:2407:GLU:C	1:F:2411:LYS:HG3	1.84	1.03
1:B:1013:THR:HG23	1:B:1014:TRP:H	1.15	1.02
1:F:1035:VAL:HG12	1:F:1041:ALA:HB1	1.40	1.02
1:F:1385:ARG:HH11	1:F:2411:LYS:HE2	1.20	1.01
1:F:1394:HIS:HE1	1:C:2324:LYS:HD3	1.13	1.01
1:F:992:THR:CG2	1:F:996:LEU:CG	2.39	1.01
1:E:992:THR:CG2	1:E:996:LEU:CG	2.39	1.01
1:B:992:THR:CG2	1:B:996:LEU:CG	2.39	1.01
1:C:2433:ARG:HA	1:C:2524:CYS:HB3	1.44	1.00
1:D:992:THR:CG2	1:D:996:LEU:CG	2.39	1.00
1:F:1037:ASP:OD1	1:F:1043:ARG:CG	2.08	1.00
1:A:992:THR:CG2	1:A:996:LEU:CG	2.39	1.00
1:D:2433:ARG:HA	1:D:2524:CYS:HB3	1.44	1.00
1:C:992:THR:CG2	1:C:996:LEU:CG	2.39	1.00
1:A:2433:ARG:HA	1:A:2524:CYS:HB3	1.44	0.99
1:E:1220:THR:HG22	1:E:1221:PRO:N	1.78	0.99
1:E:2433:ARG:HA	1:E:2524:CYS:HB3	1.44	0.99
1:B:2433:ARG:HA	1:B:2524:CYS:HB3	1.44	0.99
1:D:1220:THR:HG22	1:D:1221:PRO:N	1.78	0.98
1:E:792:ALA:O	1:E:2433:ARG:CG	2.12	0.98
1:F:792:ALA:O	1:F:2433:ARG:CG	2.12	0.98
1:F:1037:ASP:HA	1:F:1039:ALA:N	1.77	0.98
1:C:792:ALA:O	1:C:2433:ARG:CG	2.12	0.98
1:D:792:ALA:O	1:D:2433:ARG:CG	2.12	0.97
1:F:1385:ARG:HD2	1:F:2407:GLU:CD	1.89	0.97
1:F:1385:ARG:HH11	1:F:2411:LYS:NZ	1.42	0.97
1:A:792:ALA:O	1:A:2433:ARG:CG	2.12	0.97
1:F:2433:ARG:HA	1:F:2524:CYS:HB3	1.44	0.97
1:F:953:ALA:HB2	1:F:1032:ILE:HD11	1.46	0.97
1:F:1401:THR:HG21	1:C:2286:ARG:HH22	1.18	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3080:ARG:HH11	1:C:3080:ARG:HG3	1.29	0.97
1:A:1220:THR:HG22	1:A:1221:PRO:N	1.78	0.97
1:D:407:VAL:HB	1:D:933:VAL:HG11	1.47	0.97
1:F:1220:THR:HG22	1:F:1221:PRO:N	1.78	0.97
1:F:3080:ARG:HH11	1:F:3080:ARG:HG3	1.29	0.97
1:C:1220:THR:HG22	1:C:1221:PRO:N	1.78	0.96
1:C:407:VAL:HB	1:C:933:VAL:HG21	1.47	0.96
1:F:1385:ARG:CD	1:F:2411:LYS:NZ	2.25	0.96
1:B:792:ALA:O	1:B:2433:ARG:CG	2.11	0.96
1:F:1021:LEU:HD22	1:F:1034:GLU:CG	1.96	0.96
1:A:407:VAL:HB	1:A:933:VAL:HG11	1.47	0.96
1:F:1038:ALA:CB	1:F:1126:ILE:HA	1.95	0.95
1:A:3080:ARG:HH11	1:A:3080:ARG:HG3	1.29	0.95
1:E:992:THR:HG21	1:E:996:LEU:CG	1.97	0.95
1:E:3080:ARG:HH11	1:E:3080:ARG:HG3	1.29	0.95
1:F:1039:ALA:CB	1:F:1125:VAL:CB	2.45	0.95
1:D:3080:ARG:HG3	1:D:3080:ARG:HH11	1.29	0.95
1:C:992:THR:HG21	1:C:996:LEU:CG	1.97	0.94
1:B:3080:ARG:HH11	1:B:3080:ARG:HG3	1.29	0.94
1:D:992:THR:HG21	1:D:996:LEU:CG	1.97	0.94
1:F:1401:THR:CG2	1:C:2286:ARG:HH22	1.81	0.94
1:F:1020:THR:H	1:F:1035:VAL:HG21	1.31	0.94
1:A:992:THR:HG21	1:A:996:LEU:CG	1.97	0.94
1:B:1220:THR:HG22	1:B:1221:PRO:N	1.77	0.94
1:E:407:VAL:HB	1:E:933:VAL:HG11	1.47	0.94
1:B:1003:HIS:CG	1:B:1004:VAL:H	1.86	0.94
1:F:992:THR:HG21	1:F:996:LEU:CG	1.97	0.93
1:F:793:ARG:O	1:F:2435:LEU:CG	2.17	0.93
1:D:793:ARG:O	1:D:2435:LEU:CG	2.17	0.93
1:F:1385:ARG:NE	1:F:2411:LYS:HZ3	1.66	0.93
1:A:2100:ALA:O	1:A:2103:TRP:CG	2.22	0.93
1:B:2100:ALA:O	1:B:2103:TRP:CG	2.22	0.93
1:C:2100:ALA:O	1:C:2103:TRP:CG	2.22	0.93
1:B:793:ARG:O	1:B:2435:LEU:CG	2.16	0.93
1:B:992:THR:HG21	1:B:996:LEU:CG	1.97	0.93
1:B:1012:GLY:O	1:B:1013:THR:HG22	1.69	0.93
1:D:1012:GLY:O	1:D:1013:THR:HG22	1.69	0.93
1:A:793:ARG:O	1:A:2435:LEU:CG	2.16	0.93
1:B:407:VAL:HB	1:B:933:VAL:HG21	1.47	0.93
1:E:2100:ALA:O	1:E:2103:TRP:CG	2.22	0.93
1:D:2100:ALA:O	1:D:2103:TRP:CG	2.22	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1037:ASP:OD2	1:F:1043:ARG:HB2	1.69	0.93
1:C:1012:GLY:O	1:C:1013:THR:HG22	1.69	0.92
1:F:2100:ALA:O	1:F:2103:TRP:CG	2.22	0.92
1:C:793:ARG:O	1:C:2435:LEU:CG	2.17	0.92
1:E:793:ARG:O	1:E:2435:LEU:CG	2.16	0.92
1:F:407:VAL:HB	1:F:933:VAL:HG11	1.47	0.92
1:F:1012:GLY:O	1:F:1013:THR:HG22	1.69	0.92
1:D:1003:HIS:CG	1:D:1004:VAL:H	1.86	0.92
1:F:513:SER:O	1:F:961:ARG:CZ	2.18	0.92
1:C:1003:HIS:CG	1:C:1004:VAL:H	1.86	0.92
1:F:1003:HIS:CG	1:F:1004:VAL:H	1.86	0.91
1:F:1385:ARG:NH1	1:F:2411:LYS:HZ2	1.53	0.91
1:A:1012:GLY:O	1:A:1013:THR:HG22	1.69	0.91
1:F:1013:THR:HG23	1:F:1014:TRP:N	1.84	0.91
1:F:1037:ASP:HB2	1:F:1041:ALA:HB3	1.50	0.91
1:F:1019:PHE:HE2	1:F:1034:GLU:HG2	1.35	0.91
1:F:1038:ALA:HB2	1:F:1126:ILE:HA	1.54	0.90
1:B:1013:THR:HG23	1:B:1014:TRP:N	1.84	0.90
1:E:1013:THR:HG23	1:E:1014:TRP:N	1.84	0.90
1:A:1013:THR:HG23	1:A:1014:TRP:N	1.84	0.90
1:F:1037:ASP:N	1:F:1038:ALA:HB3	1.85	0.90
1:F:959:ALA:HB1	1:F:1127:GLU:N	1.87	0.90
1:F:2407:GLU:O	1:F:2411:LYS:CG	2.19	0.89
1:E:1012:GLY:O	1:E:1013:THR:HG22	1.69	0.89
1:F:2407:GLU:HB3	1:F:2411:LYS:CE	2.02	0.89
1:F:2407:GLU:CB	1:F:2411:LYS:HE3	2.02	0.89
1:A:1003:HIS:CG	1:A:1004:VAL:H	1.86	0.89
1:E:1003:HIS:CG	1:E:1004:VAL:H	1.86	0.89
1:F:2407:GLU:HB3	1:F:2411:LYS:HE3	1.52	0.89
1:F:1039:ALA:CB	1:F:1125:VAL:HB	2.00	0.89
1:F:1039:ALA:HB2	1:F:1125:VAL:HG11	0.90	0.88
1:F:1038:ALA:C	1:F:1125:VAL:HG12	1.98	0.88
1:F:1385:ARG:HG3	1:F:2407:GLU:OE2	1.73	0.88
1:F:959:ALA:O	1:F:1126:ILE:HG12	1.75	0.87
1:C:931:VAL:HG13	1:C:934:LEU:H	1.40	0.87
1:F:1035:VAL:CG1	1:F:1041:ALA:HB1	2.04	0.86
1:E:931:VAL:HG13	1:E:934:LEU:H	1.40	0.86
1:A:931:VAL:HG13	1:A:934:LEU:H	1.40	0.86
1:F:1385:ARG:CZ	1:F:2411:LYS:HZ2	1.83	0.86
1:B:931:VAL:HG11	1:B:933:VAL:CG2	2.06	0.86
1:F:931:VAL:HG13	1:F:934:LEU:H	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2105:GLY:O	1:C:2108:LEU:CG	2.24	0.86
1:F:1385:ARG:CG	1:F:2407:GLU:OE2	2.24	0.85
1:C:931:VAL:HG11	1:C:933:VAL:CG2	2.06	0.85
1:E:2865:ARG:HD3	1:B:3077:THR:HA	1.57	0.85
1:F:2105:GLY:O	1:F:2108:LEU:CG	2.25	0.85
1:A:2105:GLY:O	1:A:2108:LEU:CG	2.24	0.85
1:D:2105:GLY:O	1:D:2108:LEU:CG	2.24	0.85
1:B:2105:GLY:O	1:B:2108:LEU:CG	2.25	0.85
1:D:931:VAL:HG11	1:D:933:VAL:CG1	2.06	0.85
1:F:2865:ARG:HD3	1:A:3077:THR:HA	1.57	0.85
1:A:1218:THR:HG23	1:A:1441:GLN:OE1	1.77	0.85
1:C:1218:THR:HG23	1:C:1441:GLN:OE1	1.77	0.85
1:D:2865:ARG:HD3	1:C:3077:THR:HA	1.57	0.85
1:E:931:VAL:HG11	1:E:933:VAL:CG1	2.06	0.85
1:F:513:SER:O	1:F:961:ARG:CD	2.25	0.85
1:F:1037:ASP:HA	1:F:1039:ALA:H	1.42	0.85
1:E:2105:GLY:O	1:E:2108:LEU:CG	2.24	0.85
1:A:931:VAL:HG11	1:A:933:VAL:CG1	2.06	0.85
1:E:3077:THR:HA	1:B:2865:ARG:HD3	1.57	0.85
1:D:931:VAL:HG13	1:D:934:LEU:H	1.40	0.84
1:F:992:THR:HG22	1:F:996:LEU:CG	2.07	0.84
1:C:992:THR:HG22	1:C:996:LEU:CG	2.07	0.84
1:A:992:THR:HG22	1:A:996:LEU:CG	2.07	0.84
1:B:931:VAL:HG13	1:B:934:LEU:H	1.40	0.84
1:F:931:VAL:HG11	1:F:933:VAL:CG1	2.06	0.84
1:F:1385:ARG:CZ	1:F:2411:LYS:HZ3	1.81	0.84
1:D:1218:THR:HG23	1:D:1441:GLN:OE1	1.77	0.84
1:F:1039:ALA:HB3	1:F:1125:VAL:HB	1.57	0.84
1:B:1218:THR:HG23	1:B:1441:GLN:OE1	1.77	0.84
1:B:992:THR:HG22	1:B:996:LEU:CG	2.07	0.84
1:D:3077:THR:HA	1:C:2865:ARG:HD3	1.57	0.84
1:F:1218:THR:HG23	1:F:1441:GLN:OE1	1.77	0.84
1:E:1218:THR:HG23	1:E:1441:GLN:OE1	1.77	0.84
1:F:3077:THR:HA	1:A:2865:ARG:HD3	1.57	0.83
1:D:1013:THR:HG23	1:D:1014:TRP:N	1.84	0.83
1:A:43:PRO:HG2	1:A:348:ALA:HA	1.60	0.83
1:D:992:THR:HG22	1:D:996:LEU:CG	2.07	0.83
1:F:953:ALA:CB	1:F:1032:ILE:HD12	2.09	0.83
1:E:992:THR:HG22	1:E:996:LEU:CG	2.07	0.83
1:E:43:PRO:HG2	1:E:348:ALA:HA	1.60	0.83
1:F:953:ALA:HB1	1:F:1032:ILE:HD12	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1538:ARG:HH11	1:F:1722:PRO:HB3	1.43	0.83
1:B:43:PRO:HG2	1:B:348:ALA:HA	1.60	0.82
1:B:1538:ARG:HH11	1:B:1722:PRO:HB3	1.43	0.82
1:C:1538:ARG:HH11	1:C:1722:PRO:HB3	1.43	0.82
1:C:1013:THR:HG23	1:C:1014:TRP:N	1.84	0.82
1:F:43:PRO:HG2	1:F:348:ALA:HA	1.60	0.82
1:A:2451:ASP:CG	1:A:2454:ASP:OD2	2.22	0.82
1:E:2016:VAL:HG13	1:E:2020:PRO:HG3	1.62	0.82
1:B:2016:VAL:HG13	1:B:2020:PRO:HG3	1.62	0.82
1:A:1538:ARG:HH11	1:A:1722:PRO:HB3	1.43	0.82
1:B:2451:ASP:CG	1:B:2454:ASP:OD2	2.22	0.81
1:E:2730:TYR:OH	1:E:3059:ARG:NH1	2.14	0.81
1:D:2451:ASP:CG	1:D:2454:ASP:OD2	2.22	0.81
1:A:2016:VAL:HG13	1:A:2020:PRO:HG3	1.62	0.81
1:A:2730:TYR:OH	1:A:3059:ARG:NH1	2.14	0.81
1:C:2451:ASP:CG	1:C:2454:ASP:OD2	2.22	0.81
1:D:2016:VAL:HG13	1:D:2020:PRO:HG3	1.62	0.81
1:E:2451:ASP:CG	1:E:2454:ASP:OD2	2.22	0.81
1:F:953:ALA:HB1	1:F:1032:ILE:CD1	2.10	0.81
1:B:46:VAL:HB	1:B:155:VAL:HG13	1.63	0.81
1:F:138:ARG:NH2	1:F:175:ASP:OD2	2.14	0.81
1:C:2016:VAL:HG13	1:C:2020:PRO:HG3	1.62	0.81
1:F:46:VAL:HB	1:F:155:VAL:HG13	1.63	0.81
1:B:138:ARG:NH2	1:B:175:ASP:OD2	2.14	0.81
1:C:43:PRO:HG2	1:C:348:ALA:HA	1.60	0.81
1:D:1538:ARG:HH11	1:D:1722:PRO:HB3	1.43	0.81
1:E:138:ARG:NH2	1:E:175:ASP:OD2	2.14	0.81
1:F:967:VAL:HA	1:F:970:ILE:HB	1.63	0.81
1:F:2016:VAL:HG13	1:F:2020:PRO:HG3	1.62	0.81
1:F:2451:ASP:CG	1:F:2454:ASP:OD2	2.22	0.81
1:D:967:VAL:HA	1:D:970:ILE:HB	1.63	0.80
1:A:138:ARG:NH2	1:A:175:ASP:OD2	2.14	0.80
1:D:2730:TYR:OH	1:D:3059:ARG:NH1	2.14	0.80
1:E:967:VAL:HA	1:E:970:ILE:HB	1.63	0.80
1:B:967:VAL:HA	1:B:970:ILE:HB	1.63	0.80
1:C:46:VAL:HB	1:C:155:VAL:HG13	1.63	0.80
1:C:138:ARG:NH2	1:C:175:ASP:OD2	2.14	0.80
1:C:967:VAL:HA	1:C:970:ILE:HB	1.63	0.80
1:F:931:VAL:CG1	1:F:933:VAL:CG1	2.60	0.80
1:C:931:VAL:CG1	1:C:933:VAL:CG2	2.60	0.80
1:E:46:VAL:HB	1:E:155:VAL:HG13	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2730:TYR:OH	1:F:3059:ARG:NH1	2.14	0.80
1:A:46:VAL:HB	1:A:155:VAL:HG13	1.63	0.80
1:B:931:VAL:CG1	1:B:933:VAL:CG2	2.60	0.80
1:E:1538:ARG:HH11	1:E:1722:PRO:HB3	1.43	0.80
1:A:931:VAL:CG1	1:A:933:VAL:CG1	2.60	0.80
1:D:931:VAL:CG1	1:D:933:VAL:CG1	2.60	0.80
1:C:2610:ARG:HH12	1:C:2700:LEU:HD11	1.47	0.80
1:E:931:VAL:CG1	1:E:933:VAL:CG1	2.60	0.80
1:C:2730:TYR:OH	1:C:3059:ARG:NH1	2.14	0.80
1:F:273:ARG:HB2	1:F:282:VAL:H	1.47	0.80
1:B:2730:TYR:OH	1:B:3059:ARG:NH1	2.14	0.80
1:B:2610:ARG:HH12	1:B:2700:LEU:HD11	1.47	0.79
1:E:931:VAL:HG11	1:E:933:VAL:HG13	1.65	0.79
1:A:967:VAL:HA	1:A:970:ILE:HB	1.63	0.79
1:B:1220:THR:CG2	1:B:1221:PRO:N	2.46	0.79
1:F:1020:THR:H	1:F:1035:VAL:CG2	1.96	0.79
1:A:273:ARG:HB2	1:A:282:VAL:H	1.47	0.79
1:D:1220:THR:CG2	1:D:1221:PRO:N	2.46	0.79
1:F:2450:TRP:CG	1:F:3016:ALA:HB1	2.18	0.79
1:A:1220:THR:CG2	1:A:1221:PRO:N	2.46	0.79
1:A:2450:TRP:CG	1:A:3016:ALA:HB1	2.18	0.79
1:B:273:ARG:HB2	1:B:282:VAL:H	1.47	0.79
1:F:1019:PHE:CE1	1:F:1042:MET:SD	2.76	0.79
1:F:513:SER:C	1:F:961:ARG:NH1	2.40	0.79
1:C:273:ARG:HB2	1:C:282:VAL:H	1.47	0.78
1:E:2610:ARG:HH12	1:E:2700:LEU:HD11	1.47	0.78
1:F:1220:THR:CG2	1:F:1221:PRO:N	2.46	0.78
1:F:2610:ARG:HH12	1:F:2700:LEU:HD11	1.47	0.78
1:D:2610:ARG:HH12	1:D:2700:LEU:HD11	1.47	0.78
1:E:2450:TRP:CG	1:E:3016:ALA:HB1	2.18	0.78
1:E:1329:ALA:HB3	1:E:1337:MET:H	1.48	0.78
1:F:1037:ASP:CG	1:F:1043:ARG:CG	2.54	0.78
1:C:2450:TRP:CG	1:C:3016:ALA:HB1	2.18	0.78
1:D:971:ALA:O	1:D:974:THR:HG22	1.84	0.78
1:A:971:ALA:O	1:A:974:THR:HG22	1.84	0.78
1:B:971:ALA:O	1:B:974:THR:HG22	1.84	0.78
1:B:2450:TRP:CG	1:B:3016:ALA:HB1	2.18	0.78
1:C:971:ALA:O	1:C:974:THR:HG22	1.84	0.78
1:F:971:ALA:O	1:F:974:THR:HG22	1.84	0.78
1:E:971:ALA:O	1:E:974:THR:HG22	1.84	0.77
1:D:2450:TRP:CG	1:D:3016:ALA:HB1	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:931:VAL:HG11	1:F:933:VAL:HG13	1.65	0.77
1:F:1037:ASP:OD2	1:F:1043:ARG:CB	2.32	0.77
1:D:931:VAL:HG11	1:D:933:VAL:HG13	1.65	0.77
1:F:958:TRP:HH2	1:F:1131:SER:OG	1.61	0.77
1:A:931:VAL:CG1	1:A:933:VAL:HG13	2.15	0.77
1:B:1329:ALA:HB3	1:B:1337:MET:H	1.48	0.77
1:A:931:VAL:HG11	1:A:933:VAL:HG13	1.64	0.77
1:B:931:VAL:HG11	1:B:933:VAL:HG23	1.65	0.77
1:E:273:ARG:HB2	1:E:282:VAL:H	1.47	0.77
1:E:1220:THR:CG2	1:E:1221:PRO:N	2.46	0.77
1:A:1329:ALA:HB3	1:A:1337:MET:H	1.48	0.77
1:A:2610:ARG:HH12	1:A:2700:LEU:HD11	1.47	0.77
1:C:931:VAL:CG1	1:C:933:VAL:HG23	2.15	0.77
1:C:2112:ARG:O	1:C:2115:HIS:CG	2.38	0.77
1:C:1220:THR:CG2	1:C:1221:PRO:N	2.46	0.76
1:E:931:VAL:CG1	1:E:933:VAL:HG13	2.15	0.76
1:F:931:VAL:CG1	1:F:933:VAL:HG13	2.15	0.76
1:C:1329:ALA:HB3	1:C:1337:MET:H	1.49	0.76
1:D:2645:ASP:OD2	1:D:2691:SER:N	2.19	0.76
1:F:1329:ALA:HB3	1:F:1337:MET:H	1.49	0.76
1:A:2645:ASP:OD2	1:A:2691:SER:N	2.19	0.76
1:D:1695:LEU:HD23	1:E:257:ARG:HH12	1.50	0.76
1:A:257:ARG:HH12	1:C:1695:LEU:HD23	1.51	0.76
1:A:2557:LEU:O	1:A:2613:ARG:N	2.18	0.76
1:E:2112:ARG:O	1:E:2115:HIS:CG	2.38	0.76
1:F:934:LEU:O	1:F:937:ARG:CG	2.34	0.76
1:F:1394:HIS:CE1	1:C:2324:LYS:NZ	2.54	0.76
1:F:1019:PHE:HE1	1:F:1042:MET:SD	2.09	0.76
1:A:1695:LEU:HD23	1:B:257:ARG:HH12	1.51	0.76
1:D:931:VAL:CG1	1:D:933:VAL:HG13	2.15	0.76
1:D:2112:ARG:O	1:D:2115:HIS:CG	2.38	0.76
1:B:1097:VAL:HB	1:B:1146:PRO:HB2	1.68	0.76
1:C:934:LEU:O	1:C:937:ARG:CG	2.34	0.76
1:E:2557:LEU:O	1:E:2613:ARG:N	2.18	0.76
1:D:1329:ALA:HB3	1:D:1337:MET:H	1.48	0.76
1:E:2645:ASP:OD2	1:E:2691:SER:N	2.19	0.76
1:A:934:LEU:O	1:A:937:ARG:CG	2.34	0.76
1:C:931:VAL:HG11	1:C:933:VAL:HG23	1.65	0.76
1:B:931:VAL:CG1	1:B:933:VAL:HG23	2.15	0.75
1:B:2112:ARG:O	1:B:2115:HIS:CG	2.38	0.75
1:D:934:LEU:O	1:D:937:ARG:CG	2.34	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1035:VAL:CG1	1:F:1042:MET:HG2	2.16	0.75
1:A:2112:ARG:O	1:A:2115:HIS:CG	2.38	0.75
1:B:934:LEU:O	1:B:937:ARG:CG	2.34	0.75
1:F:1028:GLY:O	1:F:1031:PRO:HD3	1.87	0.75
1:F:2112:ARG:O	1:F:2115:HIS:CG	2.38	0.75
1:E:1695:LEU:HD23	1:F:257:ARG:HH12	1.51	0.75
1:B:2103:TRP:CG	1:B:2104:GLN:H	2.05	0.75
1:E:934:LEU:O	1:E:937:ARG:CG	2.34	0.75
1:C:2645:ASP:OD2	1:C:2691:SER:N	2.19	0.75
1:D:1097:VAL:HB	1:D:1146:PRO:HB2	1.68	0.75
1:A:1556:GLU:OE2	1:A:1560:ARG:NH2	2.20	0.75
1:C:2103:TRP:CG	1:C:2104:GLN:H	2.05	0.75
1:A:1097:VAL:HB	1:A:1146:PRO:HB2	1.68	0.75
1:B:1695:LEU:HD23	1:C:257:ARG:HH12	1.50	0.75
1:D:2103:TRP:CG	1:D:2104:GLN:H	2.05	0.74
1:E:1097:VAL:HB	1:E:1146:PRO:HB2	1.68	0.74
1:D:445:VAL:HG13	1:D:475:LEU:HD21	1.69	0.74
1:A:2103:TRP:CG	1:A:2104:GLN:H	2.05	0.74
1:C:1097:VAL:HB	1:C:1146:PRO:HB2	1.68	0.74
1:E:33:ALA:HB2	1:E:390:VAL:HA	1.70	0.74
1:F:957:LEU:O	1:F:1034:GLU:HB3	1.87	0.74
1:F:1556:GLU:OE2	1:F:1560:ARG:NH2	2.20	0.74
1:B:2557:LEU:O	1:B:2613:ARG:N	2.18	0.74
1:C:3015:ILE:HG12	1:C:3023:ARG:HG3	1.69	0.74
1:D:3015:ILE:HG12	1:D:3023:ARG:HG3	1.69	0.74
1:E:3015:ILE:HG12	1:E:3023:ARG:HG3	1.69	0.74
1:A:33:ALA:HB2	1:A:390:VAL:HA	1.70	0.74
1:F:445:VAL:HG13	1:F:475:LEU:HD21	1.69	0.74
1:F:1097:VAL:HB	1:F:1146:PRO:HB2	1.68	0.74
1:B:1556:GLU:OE2	1:B:1560:ARG:NH2	2.20	0.74
1:C:33:ALA:HB2	1:C:390:VAL:HA	1.69	0.74
1:F:2645:ASP:OD2	1:F:2691:SER:N	2.19	0.74
1:C:1556:GLU:OE2	1:C:1560:ARG:NH2	2.20	0.74
1:D:1556:GLU:OE2	1:D:1560:ARG:NH2	2.20	0.74
1:D:2697:HIS:HD2	1:C:2700:LEU:HD22	1.53	0.74
1:E:445:VAL:HG13	1:E:475:LEU:HD21	1.69	0.74
1:F:2103:TRP:CG	1:F:2104:GLN:H	2.05	0.74
1:F:960:GLY:HA2	1:F:1126:ILE:HD13	1.70	0.74
1:B:3015:ILE:HG12	1:B:3023:ARG:HG3	1.69	0.74
1:E:1556:GLU:OE2	1:E:1560:ARG:NH2	2.20	0.73
1:B:445:VAL:HG13	1:B:475:LEU:HD21	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2603:ARG:NH2	1:C:2612:PRO:O	2.22	0.73
1:F:2053:ALA:O	1:F:2807:ARG:NH2	2.21	0.73
1:F:2700:LEU:HD22	1:A:2697:HIS:HD2	1.53	0.73
1:A:2096:VAL:O	1:A:2099:GLN:CG	2.37	0.73
1:C:2053:ALA:O	1:C:2807:ARG:NH2	2.21	0.73
1:D:437:PRO:HG3	1:D:876:LEU:HB3	1.70	0.73
1:D:2096:VAL:O	1:D:2099:GLN:CG	2.37	0.73
1:E:1168:ARG:N	1:E:1194:ILE:O	2.21	0.73
1:E:2103:TRP:CG	1:E:2104:GLN:H	2.05	0.73
1:E:2612:PRO:O	1:B:2603:ARG:NH2	2.22	0.73
1:F:3015:ILE:HG12	1:F:3023:ARG:HG3	1.69	0.73
1:F:2697:HIS:HD2	1:A:2700:LEU:HD22	1.53	0.73
1:A:445:VAL:HG13	1:A:475:LEU:HD21	1.69	0.73
1:B:2096:VAL:O	1:B:2099:GLN:CG	2.36	0.73
1:B:2645:ASP:OD2	1:B:2691:SER:N	2.19	0.73
1:F:1037:ASP:CA	1:F:1038:ALA:HB3	2.18	0.73
1:F:2883:ALA:O	1:F:2916:ARG:NH1	2.22	0.73
1:B:2883:ALA:O	1:B:2916:ARG:NH1	2.22	0.73
1:D:2612:PRO:O	1:C:2603:ARG:NH2	2.22	0.73
1:F:2096:VAL:O	1:F:2099:GLN:CG	2.36	0.73
1:C:2557:LEU:O	1:C:2613:ARG:N	2.18	0.73
1:B:2053:ALA:O	1:B:2807:ARG:NH2	2.21	0.73
1:C:437:PRO:HG3	1:C:876:LEU:HB3	1.70	0.73
1:D:2053:ALA:O	1:D:2807:ARG:NH2	2.21	0.73
1:E:2096:VAL:O	1:E:2099:GLN:CG	2.37	0.73
1:F:2557:LEU:O	1:F:2613:ARG:N	2.18	0.73
1:F:2845:PHE:HD1	1:A:2731:GLY:HA2	1.54	0.73
1:D:2557:LEU:O	1:D:2613:ARG:N	2.18	0.72
1:E:2053:ALA:O	1:E:2807:ARG:NH2	2.21	0.72
1:E:2697:HIS:HD2	1:B:2700:LEU:HD22	1.53	0.72
1:A:437:PRO:HG3	1:A:876:LEU:HB3	1.70	0.72
1:A:3015:ILE:HG12	1:A:3023:ARG:HG3	1.69	0.72
1:B:936:ARG:HB3	1:B:941:ARG:HB3	1.71	0.72
1:D:2731:GLY:HA2	1:C:2845:PHE:HD1	1.54	0.72
1:E:2883:ALA:O	1:E:2916:ARG:NH1	2.22	0.72
1:C:445:VAL:HG13	1:C:475:LEU:HD21	1.69	0.72
1:C:2096:VAL:O	1:C:2099:GLN:CG	2.37	0.72
1:D:1400:PRO:HD2	1:D:1416:VAL:HG22	1.72	0.72
1:E:1003:HIS:CG	1:E:1004:VAL:N	2.53	0.72
1:F:33:ALA:HB2	1:F:390:VAL:HA	1.70	0.72
1:B:2998:GLY:N	1:B:3002:VAL:O	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2883:ALA:O	1:A:2916:ARG:NH1	2.22	0.72
1:C:936:ARG:HB3	1:C:941:ARG:HB3	1.71	0.72
1:D:1168:ARG:N	1:D:1194:ILE:O	2.21	0.72
1:E:437:PRO:HG3	1:E:876:LEU:HB3	1.70	0.72
1:E:936:ARG:HB3	1:E:941:ARG:HB3	1.71	0.72
1:E:2603:ARG:NH2	1:B:2612:PRO:O	2.22	0.72
1:F:70:SER:OG	1:F:142:ARG:NH2	2.23	0.72
1:A:2053:ALA:O	1:A:2807:ARG:NH2	2.21	0.72
1:B:437:PRO:HG3	1:B:876:LEU:HB3	1.70	0.72
1:C:2883:ALA:O	1:C:2916:ARG:NH1	2.22	0.72
1:D:1237:ARG:NH1	1:E:95:PRO:HB2	2.05	0.72
1:E:1253:ARG:HG3	1:E:1253:ARG:HH11	1.54	0.72
1:A:1253:ARG:HH11	1:A:1253:ARG:HG3	1.55	0.72
1:A:2998:GLY:N	1:A:3002:VAL:O	2.23	0.72
1:B:1168:ARG:N	1:B:1194:ILE:O	2.21	0.72
1:F:437:PRO:HG3	1:F:876:LEU:HB3	1.70	0.72
1:F:1020:THR:N	1:F:1035:VAL:HG21	2.03	0.72
1:F:1168:ARG:N	1:F:1194:ILE:O	2.21	0.72
1:F:2103:TRP:CG	1:F:2104:GLN:N	2.58	0.72
1:F:2731:GLY:HA2	1:A:2845:PHE:HD1	1.54	0.72
1:D:2700:LEU:HD22	1:C:2697:HIS:HD2	1.53	0.72
1:D:2998:GLY:N	1:D:3002:VAL:O	2.23	0.72
1:F:936:ARG:HB3	1:F:941:ARG:HB3	1.71	0.72
1:F:1394:HIS:CE1	1:C:2324:LYS:CD	2.56	0.72
1:F:2603:ARG:NH2	1:A:2612:PRO:O	2.22	0.72
1:F:2612:PRO:O	1:A:2603:ARG:NH2	2.22	0.72
1:A:1168:ARG:N	1:A:1194:ILE:O	2.21	0.72
1:B:33:ALA:HB2	1:B:390:VAL:HA	1.69	0.72
1:C:1168:ARG:N	1:C:1194:ILE:O	2.21	0.72
1:E:2731:GLY:HA2	1:B:2845:PHE:HD1	1.54	0.72
1:E:2845:PHE:HD1	1:B:2731:GLY:HA2	1.54	0.72
1:B:1218:THR:CG2	1:B:1441:GLN:OE1	2.38	0.72
1:B:2103:TRP:CG	1:B:2104:GLN:N	2.58	0.72
1:B:2268:GLN:OE1	1:B:2319:ARG:NH1	2.23	0.72
1:D:2103:TRP:CG	1:D:2104:GLN:N	2.58	0.71
1:D:2883:ALA:O	1:D:2916:ARG:NH1	2.22	0.71
1:A:936:ARG:HB3	1:A:941:ARG:HB3	1.71	0.71
1:B:1400:PRO:HD2	1:B:1416:VAL:HG22	1.72	0.71
1:D:1218:THR:CG2	1:D:1441:GLN:OE1	2.38	0.71
1:E:2103:TRP:CG	1:E:2104:GLN:N	2.58	0.71
1:C:1218:THR:CG2	1:C:1441:GLN:OE1	2.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2268:GLN:OE1	1:C:2319:ARG:NH1	2.23	0.71
1:C:2998:GLY:N	1:C:3002:VAL:O	2.23	0.71
1:D:2282:ASP:HB3	1:B:1390:PHE:HA	1.72	0.71
1:F:2268:GLN:OE1	1:F:2319:ARG:NH1	2.23	0.71
1:C:2103:TRP:CG	1:C:2104:GLN:N	2.58	0.71
1:E:1237:ARG:NH1	1:F:95:PRO:HB2	2.05	0.71
1:E:2700:LEU:HD22	1:B:2697:HIS:HD2	1.53	0.71
1:F:959:ALA:O	1:F:1126:ILE:CG1	2.38	0.71
1:A:95:PRO:HB2	1:C:1237:ARG:NH1	2.05	0.71
1:A:1237:ARG:NH1	1:B:95:PRO:HB2	2.05	0.71
1:B:70:SER:OG	1:B:142:ARG:NH2	2.23	0.71
1:D:2861:LEU:HD21	1:C:3075:LEU:HD23	1.72	0.71
1:E:3075:LEU:HD23	1:B:2861:LEU:HD21	1.72	0.71
1:C:580:ARG:HD2	1:C:614:GLY:HA3	1.72	0.71
1:E:2268:GLN:OE1	1:E:2319:ARG:NH1	2.23	0.71
1:F:2861:LEU:HD21	1:A:3075:LEU:HD23	1.72	0.71
1:A:2268:GLN:OE1	1:A:2319:ARG:NH1	2.24	0.71
1:D:1390:PHE:HA	1:B:2282:ASP:HB3	1.72	0.71
1:D:2268:GLN:OE1	1:D:2319:ARG:NH1	2.23	0.71
1:D:3075:LEU:HD23	1:C:2861:LEU:HD21	1.72	0.71
1:F:1218:THR:CG2	1:F:1441:GLN:OE1	2.38	0.71
1:F:2215:THR:HB	1:F:2229:LYS:HB2	1.73	0.71
1:F:2998:GLY:N	1:F:3002:VAL:O	2.23	0.71
1:E:1218:THR:CG2	1:E:1441:GLN:OE1	2.38	0.71
1:E:2743:ALA:HB1	1:E:2940:VAL:HG23	1.73	0.71
1:F:1385:ARG:NH1	1:F:2411:LYS:HE2	1.93	0.71
1:A:2103:TRP:CG	1:A:2104:GLN:N	2.58	0.71
1:E:580:ARG:HD2	1:E:614:GLY:HA3	1.73	0.71
1:F:2743:ALA:HB1	1:F:2940:VAL:HG23	1.73	0.71
1:C:70:SER:OG	1:C:142:ARG:NH2	2.23	0.71
1:D:2012:GLY:C	1:E:2591:ARG:HH12	1.99	0.70
1:D:2845:PHE:HD1	1:C:2731:GLY:HA2	1.54	0.70
1:E:70:SER:OG	1:E:142:ARG:NH2	2.23	0.70
1:E:1507:GLN:O	1:E:1562:ARG:NH1	2.24	0.70
1:E:2998:GLY:N	1:E:3002:VAL:O	2.23	0.70
1:F:2558:LEU:HG	1:F:2612:PRO:HA	1.73	0.70
1:D:580:ARG:HD2	1:D:614:GLY:HA3	1.73	0.70
1:D:1253:ARG:HH11	1:D:1253:ARG:HG3	1.55	0.70
1:D:1634:ARG:HH11	1:D:1639:ALA:H	1.39	0.70
1:D:2591:ARG:HH12	1:F:2012:GLY:C	1.99	0.70
1:E:2012:GLY:C	1:F:2591:ARG:HH12	1.99	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2282:ASP:HB3	1:A:1390:PHE:HA	1.72	0.70
1:F:1507:GLN:O	1:F:1562:ARG:NH1	2.24	0.70
1:A:1400:PRO:HD2	1:A:1416:VAL:HG22	1.72	0.70
1:B:1507:GLN:O	1:B:1562:ARG:NH1	2.24	0.70
1:E:1634:ARG:HH11	1:E:1639:ALA:H	1.39	0.70
1:F:3075:LEU:HD23	1:A:2861:LEU:HD21	1.72	0.70
1:A:580:ARG:HD2	1:A:614:GLY:HA3	1.73	0.70
1:A:1507:GLN:O	1:A:1562:ARG:NH1	2.24	0.70
1:A:2591:ARG:HH12	1:C:2012:GLY:C	1.99	0.70
1:B:1253:ARG:HH11	1:B:1253:ARG:HG3	1.55	0.70
1:B:2558:LEU:HG	1:B:2612:PRO:HA	1.74	0.70
1:F:1003:HIS:CG	1:F:1004:VAL:N	2.53	0.70
1:F:1022:THR:O	1:F:1033:VAL:HB	1.91	0.70
1:F:1253:ARG:HH11	1:F:1253:ARG:HG3	1.54	0.70
1:C:1400:PRO:HD2	1:C:1416:VAL:HG22	1.72	0.70
1:C:1507:GLN:O	1:C:1562:ARG:NH1	2.24	0.70
1:D:2860:ALA:HB3	1:D:2906:LEU:HD21	1.73	0.70
1:E:1400:PRO:HD2	1:E:1416:VAL:HG22	1.72	0.70
1:F:580:ARG:HD2	1:F:614:GLY:HA3	1.72	0.70
1:A:70:SER:OG	1:A:142:ARG:NH2	2.23	0.70
1:A:974:THR:HG21	1:A:977:GLN:HB3	1.74	0.70
1:A:1634:ARG:HH11	1:A:1639:ALA:H	1.39	0.70
1:A:2743:ALA:HB1	1:A:2940:VAL:HG23	1.73	0.70
1:C:1253:ARG:HH11	1:C:1253:ARG:HG3	1.54	0.70
1:D:936:ARG:HB3	1:D:941:ARG:HB3	1.72	0.70
1:D:1507:GLN:O	1:D:1562:ARG:NH1	2.24	0.70
1:F:2282:ASP:HB3	1:C:1390:PHE:HA	1.72	0.70
1:A:1218:THR:CG2	1:A:1441:GLN:OE1	2.38	0.70
1:B:1634:ARG:HH11	1:B:1639:ALA:H	1.39	0.70
1:C:1634:ARG:HH11	1:C:1639:ALA:H	1.39	0.70
1:D:1177:ARG:HB2	1:D:1184:LEU:HD23	1.74	0.70
1:E:1390:PHE:HA	1:A:2282:ASP:HB3	1.72	0.70
1:F:137:VAL:HG22	1:F:354:LEU:HD13	1.74	0.70
1:F:1400:PRO:HD2	1:F:1416:VAL:HG22	1.72	0.70
1:B:1237:ARG:NH1	1:C:95:PRO:HB2	2.05	0.70
1:B:2215:THR:HB	1:B:2229:LYS:HB2	1.74	0.70
1:E:2558:LEU:HG	1:E:2612:PRO:HA	1.74	0.70
1:A:2860:ALA:HB3	1:A:2906:LEU:HD21	1.73	0.70
1:B:2743:ALA:HB1	1:B:2940:VAL:HG23	1.73	0.70
1:E:1035:VAL:HG12	1:E:1037:ASP:H	1.57	0.70
1:F:1035:VAL:HG12	1:F:1041:ALA:CB	2.18	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:137:VAL:HG22	1:B:354:LEU:HD13	1.74	0.70
1:E:974:THR:HG21	1:E:977:GLN:HB3	1.74	0.70
1:E:2861:LEU:HD21	1:B:3075:LEU:HD23	1.72	0.69
1:F:1177:ARG:HB2	1:F:1184:LEU:HD23	1.74	0.69
1:A:2558:LEU:HG	1:A:2612:PRO:HA	1.73	0.69
1:B:2012:GLY:C	1:C:2591:ARG:HH12	1.99	0.69
1:C:2860:ALA:HB3	1:C:2906:LEU:HD21	1.73	0.69
1:E:137:VAL:HG22	1:E:354:LEU:HD13	1.74	0.69
1:E:1724:TYR:OH	1:F:267:GLU:OE2	2.07	0.69
1:D:2085:LEU:O	1:D:2088:ARG:CG	2.40	0.69
1:E:2860:ALA:HB3	1:E:2906:LEU:HD21	1.73	0.69
1:F:1012:GLY:O	1:F:1013:THR:CG2	2.41	0.69
1:A:2215:THR:HB	1:A:2229:LYS:HB2	1.74	0.69
1:B:1177:ARG:HB2	1:B:1184:LEU:HD23	1.74	0.69
1:C:2215:THR:HB	1:C:2229:LYS:HB2	1.74	0.69
1:D:2215:THR:HB	1:D:2229:LYS:HB2	1.73	0.69
1:A:1035:VAL:HG12	1:A:1037:ASP:H	1.57	0.69
1:A:1087:PHE:HB3	1:B:117:LYS:HZ3	1.56	0.69
1:F:1019:PHE:CE2	1:F:1034:GLU:HG2	2.24	0.69
1:A:2012:GLY:C	1:B:2591:ARG:HH12	1.99	0.69
1:B:1035:VAL:HG12	1:B:1037:ASP:H	1.57	0.69
1:C:137:VAL:HG22	1:C:354:LEU:HD13	1.74	0.69
1:D:1046:LEU:HD13	1:D:1129:LEU:HD22	1.75	0.69
1:E:2215:THR:HB	1:E:2229:LYS:HB2	1.73	0.69
1:C:1046:LEU:HD13	1:C:1129:LEU:HD22	1.75	0.69
1:D:1035:VAL:HG12	1:D:1037:ASP:H	1.57	0.69
1:F:2860:ALA:HB3	1:F:2906:LEU:HD21	1.73	0.69
1:F:2946:LEU:HD11	1:F:2992:GLY:HA3	1.75	0.69
1:A:137:VAL:HG22	1:A:354:LEU:HD13	1.74	0.69
1:B:2647:VAL:HG22	1:B:2769:ASP:HB2	1.75	0.69
1:C:2085:LEU:O	1:C:2088:ARG:CG	2.41	0.69
1:C:2558:LEU:HG	1:C:2612:PRO:HA	1.73	0.69
1:D:1003:HIS:CG	1:D:1004:VAL:N	2.53	0.69
1:F:513:SER:O	1:F:961:ARG:HD2	1.90	0.69
1:D:974:THR:HG21	1:D:977:GLN:HB3	1.74	0.69
1:F:3075:LEU:HD21	1:A:2909:ARG:HB3	1.75	0.69
1:A:1012:GLY:O	1:A:1013:THR:CG2	2.41	0.69
1:C:1177:ARG:HB2	1:C:1184:LEU:HD23	1.74	0.69
1:D:2647:VAL:HG22	1:D:2769:ASP:HB2	1.75	0.68
1:D:2946:LEU:HD11	1:D:2992:GLY:HA3	1.75	0.68
1:E:2085:LEU:O	1:E:2088:ARG:CG	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:974:THR:HG21	1:F:977:GLN:HB3	1.74	0.68
1:F:2557:LEU:HG	1:A:2702:GLY:HA3	1.76	0.68
1:B:2860:ALA:HB3	1:B:2906:LEU:HD21	1.73	0.68
1:B:2946:LEU:HD11	1:B:2992:GLY:HA3	1.75	0.68
1:C:974:THR:HG21	1:C:977:GLN:HB3	1.74	0.68
1:E:340:ILE:HD13	1:E:364:THR:HG21	1.75	0.68
1:F:1021:LEU:CD2	1:F:1034:GLU:HG3	2.14	0.68
1:F:2647:VAL:HG22	1:F:2769:ASP:HB2	1.75	0.68
1:A:1046:LEU:HD13	1:A:1129:LEU:HD22	1.75	0.68
1:C:2647:VAL:HG22	1:C:2769:ASP:HB2	1.75	0.68
1:C:2743:ALA:HB1	1:C:2940:VAL:HG23	1.73	0.68
1:E:1046:LEU:HD13	1:E:1129:LEU:HD22	1.75	0.68
1:D:2558:LEU:HG	1:D:2612:PRO:HA	1.74	0.68
1:E:2909:ARG:HB3	1:B:3075:LEU:HD21	1.75	0.68
1:F:2085:LEU:O	1:F:2088:ARG:CG	2.40	0.68
1:A:1177:ARG:HB2	1:A:1184:LEU:HD23	1.74	0.68
1:B:511:ARG:HD3	1:B:543:GLY:HA3	1.76	0.68
1:B:580:ARG:HD2	1:B:614:GLY:HA3	1.73	0.68
1:C:1035:VAL:HG12	1:C:1037:ASP:H	1.57	0.68
1:C:2946:LEU:HD11	1:C:2992:GLY:HA3	1.75	0.68
1:D:2743:ALA:HB1	1:D:2940:VAL:HG23	1.73	0.68
1:B:269:GLU:HB3	1:B:282:VAL:HA	1.76	0.68
1:B:1002:GLN:O	1:B:1003:HIS:CG	2.47	0.68
1:B:1012:GLY:O	1:B:1013:THR:CG2	2.41	0.68
1:B:2085:LEU:O	1:B:2088:ARG:CG	2.41	0.68
1:D:3075:LEU:HD21	1:C:2909:ARG:HB3	1.76	0.68
1:E:1008:VAL:HG12	1:E:1019:PHE:HB3	1.76	0.68
1:E:1177:ARG:HB2	1:E:1184:LEU:HD23	1.74	0.68
1:F:1385:ARG:HD2	1:F:2411:LYS:HZ1	1.59	0.68
1:A:267:GLU:OE2	1:C:1724:TYR:OH	2.07	0.68
1:A:2647:VAL:HG22	1:A:2769:ASP:HB2	1.75	0.68
1:C:269:GLU:HB3	1:C:282:VAL:HA	1.75	0.68
1:D:1008:VAL:HG12	1:D:1019:PHE:HB3	1.76	0.68
1:D:2557:LEU:HG	1:C:2702:GLY:HA3	1.76	0.68
1:A:340:ILE:HD13	1:A:364:THR:HG21	1.75	0.68
1:A:2085:LEU:O	1:A:2088:ARG:CG	2.41	0.68
1:C:1008:VAL:HG22	1:C:1019:PHE:HB3	1.76	0.68
1:D:1164:THR:N	1:D:1167:GLY:O	2.25	0.68
1:D:2702:GLY:HA3	1:C:2557:LEU:HG	1.76	0.68
1:A:2946:LEU:HD11	1:A:2992:GLY:HA3	1.75	0.68
1:B:1164:THR:N	1:B:1167:GLY:O	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1488:VAL:HG21	1:C:1580:PRO:HD2	1.76	0.68
1:F:1042:MET:O	1:F:1043:ARG:C	2.37	0.68
1:F:1401:THR:CG2	1:C:2286:ARG:NH2	2.42	0.68
1:D:2112:ARG:N	1:D:2115:HIS:CG	2.57	0.67
1:E:2946:LEU:HD11	1:E:2992:GLY:HA3	1.75	0.67
1:F:1634:ARG:HH11	1:F:1639:ALA:H	1.39	0.67
1:A:1003:HIS:CG	1:A:1004:VAL:N	2.53	0.67
1:B:340:ILE:HD13	1:B:364:THR:HG21	1.75	0.67
1:B:1046:LEU:HD13	1:B:1129:LEU:HD22	1.75	0.67
1:D:511:ARG:HD3	1:D:543:GLY:HA3	1.76	0.67
1:D:1002:GLN:O	1:D:1003:HIS:CG	2.47	0.67
1:E:2702:GLY:HA3	1:B:2557:LEU:HG	1.76	0.67
1:F:1002:GLN:O	1:F:1003:HIS:CG	2.47	0.67
1:A:2126:ALA:O	1:A:2129:PRO:CG	2.43	0.67
1:B:931:VAL:CG1	1:B:933:VAL:HG22	2.24	0.67
1:B:1003:HIS:CG	1:B:1004:VAL:N	2.53	0.67
1:D:1488:VAL:HG21	1:D:1580:PRO:HD2	1.76	0.67
1:E:269:GLU:HB3	1:E:282:VAL:HA	1.75	0.67
1:E:931:VAL:CG1	1:E:933:VAL:HG12	2.25	0.67
1:F:1046:LEU:HD13	1:F:1129:LEU:HD22	1.75	0.67
1:F:2081:GLN:O	1:F:2084:GLN:CG	2.43	0.67
1:C:1002:GLN:O	1:C:1003:HIS:CG	2.47	0.67
1:A:792:ALA:HA	1:A:799:PHE:HE2	1.60	0.67
1:B:974:THR:HG21	1:B:977:GLN:HB3	1.74	0.67
1:C:1003:HIS:CG	1:C:1004:VAL:N	2.53	0.67
1:C:1012:GLY:O	1:C:1013:THR:CG2	2.41	0.67
1:D:1012:GLY:O	1:D:1013:THR:CG2	2.41	0.67
1:C:340:ILE:HD13	1:C:364:THR:HG21	1.75	0.67
1:C:1164:THR:N	1:C:1167:GLY:O	2.25	0.67
1:C:2081:GLN:O	1:C:2084:GLN:CG	2.43	0.67
1:B:2126:ALA:O	1:B:2129:PRO:CG	2.43	0.67
1:C:931:VAL:CG1	1:C:933:VAL:HG22	2.25	0.67
1:D:931:VAL:CG1	1:D:933:VAL:HG12	2.25	0.67
1:E:3075:LEU:HD21	1:B:2909:ARG:HB3	1.76	0.67
1:A:1008:VAL:HG12	1:A:1019:PHE:HB3	1.76	0.67
1:F:340:ILE:HD13	1:F:364:THR:HG21	1.75	0.67
1:F:511:ARG:HD3	1:F:543:GLY:HA3	1.76	0.67
1:F:792:ALA:HA	1:F:799:PHE:HE2	1.60	0.67
1:A:269:GLU:HB3	1:A:282:VAL:HA	1.75	0.67
1:E:1002:GLN:O	1:E:1003:HIS:CG	2.47	0.67
1:E:2647:VAL:HG22	1:E:2769:ASP:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1168:ARG:HB2	1:C:1197:ARG:HB2	1.77	0.67
1:D:683:GLY:HA2	1:D:700:ASN:HB2	1.77	0.66
1:D:1488:VAL:HG12	1:D:1490:ARG:NH1	2.10	0.66
1:D:3080:ARG:HH11	1:D:3080:ARG:CG	2.07	0.66
1:F:2094:HIS:CG	1:F:2096:VAL:CG1	2.75	0.66
1:C:511:ARG:HD3	1:C:543:GLY:HA3	1.76	0.66
1:D:792:ALA:HA	1:D:799:PHE:HE2	1.60	0.66
1:E:2081:GLN:O	1:E:2084:GLN:CG	2.43	0.66
1:F:269:GLU:HB3	1:F:282:VAL:HA	1.75	0.66
1:F:1008:VAL:HG22	1:F:1019:PHE:HB3	1.76	0.66
1:F:2909:ARG:HB3	1:A:3075:LEU:HD21	1.75	0.66
1:B:511:ARG:HB2	1:B:540:ASN:HB2	1.77	0.66
1:B:2081:GLN:O	1:B:2084:GLN:CG	2.43	0.66
1:C:683:GLY:HA2	1:C:700:ASN:HB2	1.78	0.66
1:C:1167:GLY:HA3	1:C:1195:ARG:HA	1.77	0.66
1:C:1358:GLN:HG2	1:C:1423:THR:HG23	1.78	0.66
1:D:1167:GLY:HA3	1:D:1195:ARG:HA	1.78	0.66
1:D:2126:ALA:O	1:D:2129:PRO:CG	2.43	0.66
1:F:511:ARG:HB2	1:F:540:ASN:HB2	1.78	0.66
1:F:666:VAL:HG21	1:F:904:VAL:HB	1.78	0.66
1:A:511:ARG:HD3	1:A:543:GLY:HA3	1.76	0.66
1:A:511:ARG:HB2	1:A:540:ASN:HB2	1.77	0.66
1:A:1002:GLN:O	1:A:1003:HIS:CG	2.47	0.66
1:A:1167:GLY:HA3	1:A:1195:ARG:HA	1.78	0.66
1:B:3080:ARG:HH11	1:B:3080:ARG:CG	2.07	0.66
1:C:792:ALA:HA	1:C:799:PHE:HE2	1.60	0.66
1:C:2094:HIS:CG	1:C:2096:VAL:CG2	2.75	0.66
1:C:2126:ALA:O	1:C:2129:PRO:CG	2.43	0.66
1:D:2081:GLN:O	1:D:2084:GLN:CG	2.43	0.66
1:E:1167:GLY:HA3	1:E:1195:ARG:HA	1.78	0.66
1:E:2112:ARG:N	1:E:2115:HIS:CG	2.57	0.66
1:F:1358:GLN:HG2	1:F:1423:THR:HG23	1.78	0.66
1:F:1385:ARG:NH1	1:F:2411:LYS:HZ3	1.66	0.66
1:F:1488:VAL:HG12	1:F:1490:ARG:NH1	2.10	0.66
1:F:2112:ARG:N	1:F:2115:HIS:CG	2.57	0.66
1:A:1132:LEU:HD11	1:A:1192:PHE:HB3	1.78	0.66
1:B:35:VAL:HG11	1:B:147:LEU:HB3	1.78	0.66
1:B:666:VAL:HG21	1:B:904:VAL:HB	1.78	0.66
1:B:1008:VAL:HG22	1:B:1019:PHE:HB3	1.76	0.66
1:B:1488:VAL:HG12	1:B:1490:ARG:NH1	2.10	0.66
1:C:1488:VAL:HG12	1:C:1490:ARG:NH1	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:511:ARG:HB2	1:D:540:ASN:HB2	1.77	0.66
1:D:1168:ARG:HB2	1:D:1197:ARG:HB2	1.77	0.66
1:E:511:ARG:HB2	1:E:540:ASN:HB2	1.78	0.66
1:E:1164:THR:N	1:E:1167:GLY:O	2.25	0.66
1:E:2126:ALA:O	1:E:2129:PRO:CG	2.43	0.66
1:A:1488:VAL:HG21	1:A:1580:PRO:HD2	1.76	0.66
1:E:792:ALA:HA	1:E:799:PHE:HE2	1.60	0.66
1:E:1132:LEU:HD11	1:E:1192:PHE:HB3	1.78	0.66
1:E:1358:GLN:HG2	1:E:1423:THR:HG23	1.78	0.66
1:E:2679:ALA:HB3	1:E:2762:VAL:HG12	1.78	0.66
1:A:1358:GLN:HG2	1:A:1423:THR:HG23	1.78	0.66
1:A:2081:GLN:O	1:A:2084:GLN:CG	2.43	0.66
1:D:2909:ARG:HB3	1:C:3075:LEU:HD21	1.75	0.66
1:F:1412:HIS:HD2	1:F:1413:PRO:HD2	1.61	0.66
1:F:2126:ALA:O	1:F:2129:PRO:CG	2.43	0.66
1:F:2679:ALA:HB3	1:F:2762:VAL:HG12	1.78	0.66
1:A:1412:HIS:ND1	1:A:1415:GLY:O	2.26	0.66
1:A:2679:ALA:HB3	1:A:2762:VAL:HG12	1.78	0.66
1:B:1412:HIS:ND1	1:B:1415:GLY:O	2.26	0.66
1:E:1012:GLY:O	1:E:1013:THR:CG2	2.41	0.66
1:E:1412:HIS:HD2	1:E:1413:PRO:HD2	1.61	0.66
1:E:2094:HIS:CG	1:E:2096:VAL:CG1	2.75	0.66
1:F:513:SER:C	1:F:961:ARG:HH11	2.02	0.66
1:F:1084:THR:HG21	1:F:1274:ALA:HA	1.78	0.66
1:A:931:VAL:CG1	1:A:933:VAL:HG12	2.25	0.66
1:A:1084:THR:HG21	1:A:1274:ALA:HA	1.78	0.66
1:C:997:GLU:O	1:C:1009:PRO:N	2.29	0.66
1:E:997:GLU:O	1:E:1009:PRO:N	2.29	0.66
1:F:1132:LEU:HD11	1:F:1192:PHE:HB3	1.78	0.66
1:A:2112:ARG:N	1:A:2115:HIS:CG	2.57	0.66
1:D:997:GLU:O	1:D:1009:PRO:N	2.29	0.66
1:F:931:VAL:CG1	1:F:933:VAL:HG12	2.25	0.66
1:F:1488:VAL:HG21	1:F:1580:PRO:HD2	1.77	0.66
1:F:2702:GLY:HA3	1:A:2557:LEU:HG	1.76	0.66
1:A:997:GLU:O	1:A:1009:PRO:N	2.29	0.66
1:B:997:GLU:O	1:B:1009:PRO:N	2.29	0.66
1:B:1132:LEU:HD11	1:B:1192:PHE:HB3	1.78	0.66
1:C:1412:HIS:HD2	1:C:1413:PRO:HD2	1.60	0.66
1:E:1084:THR:HG21	1:E:1274:ALA:HA	1.78	0.65
1:F:683:GLY:HA2	1:F:700:ASN:HB2	1.78	0.65
1:B:1167:GLY:HA3	1:B:1195:ARG:HA	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:511:ARG:HD3	1:E:543:GLY:HA3	1.76	0.65
1:E:666:VAL:HG21	1:E:904:VAL:HB	1.78	0.65
1:F:207:MET:HE2	1:F:292:VAL:HG21	1.79	0.65
1:A:1168:ARG:HB2	1:A:1197:ARG:HB2	1.77	0.65
1:B:1084:THR:HG21	1:B:1274:ALA:HA	1.78	0.65
1:B:2112:ARG:N	1:B:2115:HIS:CG	2.57	0.65
1:B:2679:ALA:HB3	1:B:2762:VAL:HG12	1.78	0.65
1:C:1536:ASN:HA	1:C:1679:TRP:HB3	1.78	0.65
1:C:3080:ARG:HH11	1:C:3080:ARG:CG	2.07	0.65
1:D:450:ASN:HA	1:D:483:ARG:HH11	1.62	0.65
1:E:203:ASP:OD1	1:E:204:ARG:N	2.29	0.65
1:E:1488:VAL:HG12	1:E:1490:ARG:NH1	2.10	0.65
1:E:2876:LEU:HD11	1:E:2886:ILE:HD11	1.79	0.65
1:F:997:GLU:O	1:F:1009:PRO:N	2.29	0.65
1:B:683:GLY:HA2	1:B:700:ASN:HB2	1.78	0.65
1:B:1168:ARG:HB2	1:B:1197:ARG:HB2	1.77	0.65
1:C:2706:PRO:HG2	1:C:2709:ILE:HG23	1.79	0.65
1:D:643:ILE:HD12	1:D:915:PHE:HZ	1.62	0.65
1:E:1534:ASN:HB2	1:E:1543:ALA:HB3	1.78	0.65
1:E:2557:LEU:HG	1:B:2702:GLY:HA3	1.76	0.65
1:E:2706:PRO:HG2	1:E:2709:ILE:HG23	1.79	0.65
1:F:1534:ASN:HB2	1:F:1543:ALA:HB3	1.79	0.65
1:A:643:ILE:HD12	1:A:915:PHE:HZ	1.62	0.65
1:B:792:ALA:HA	1:B:799:PHE:HE2	1.60	0.65
1:C:1534:ASN:HB2	1:C:1543:ALA:HB3	1.79	0.65
1:C:2876:LEU:HD11	1:C:2886:ILE:HD11	1.79	0.65
1:D:2876:LEU:HD11	1:D:2886:ILE:HD11	1.79	0.65
1:E:1168:ARG:HB2	1:E:1197:ARG:HB2	1.77	0.65
1:E:1536:ASN:HA	1:E:1679:TRP:HB3	1.78	0.65
1:A:203:ASP:OD1	1:A:204:ARG:N	2.29	0.65
1:A:1536:ASN:HA	1:A:1679:TRP:HB3	1.79	0.65
1:C:203:ASP:OD1	1:C:204:ARG:N	2.30	0.65
1:D:1358:GLN:HG2	1:D:1423:THR:HG23	1.78	0.65
1:E:683:GLY:HA2	1:E:700:ASN:HB2	1.78	0.65
1:F:1168:ARG:HB2	1:F:1197:ARG:HB2	1.77	0.65
1:A:929:GLU:O	1:A:930:PRO:CG	2.45	0.65
1:A:1488:VAL:HG12	1:A:1490:ARG:NH1	2.10	0.65
1:A:2876:LEU:HD11	1:A:2886:ILE:HD11	1.79	0.65
1:B:203:ASP:OD1	1:B:204:ARG:N	2.30	0.65
1:B:1534:ASN:HB2	1:B:1543:ALA:HB3	1.78	0.65
1:D:1132:LEU:HD11	1:D:1192:PHE:HB3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1534:ASN:HB2	1:D:1543:ALA:HB3	1.78	0.65
1:E:643:ILE:HD12	1:E:915:PHE:HZ	1.62	0.65
1:A:56:LEU:HD22	1:A:119:LEU:HD13	1.79	0.65
1:A:1534:ASN:HB2	1:A:1543:ALA:HB3	1.78	0.65
1:A:2652:ILE:HG12	1:A:2722:VAL:HG22	1.79	0.65
1:C:35:VAL:HG11	1:C:147:LEU:HB3	1.77	0.65
1:C:1084:THR:HG21	1:C:1274:ALA:HA	1.78	0.65
1:D:1084:THR:HG21	1:D:1274:ALA:HA	1.78	0.65
1:F:450:ASN:HA	1:F:483:ARG:HH11	1.62	0.65
1:F:929:GLU:O	1:F:930:PRO:CG	2.45	0.65
1:F:1167:GLY:HA3	1:F:1195:ARG:HA	1.77	0.65
1:A:2094:HIS:CG	1:A:2096:VAL:CG2	2.75	0.65
1:A:2252:VAL:HA	1:A:2255:ARG:HE	1.62	0.65
1:A:2706:PRO:HG2	1:A:2709:ILE:HG23	1.78	0.65
1:B:643:ILE:HD12	1:B:915:PHE:HZ	1.62	0.65
1:C:511:ARG:HB2	1:C:540:ASN:HB2	1.77	0.65
1:D:929:GLU:O	1:D:930:PRO:CG	2.45	0.65
1:D:2706:PRO:HG2	1:D:2709:ILE:HG23	1.78	0.65
1:E:450:ASN:HA	1:E:483:ARG:HH11	1.62	0.65
1:A:35:VAL:HG11	1:A:147:LEU:HB3	1.78	0.65
1:B:1358:GLN:HG2	1:B:1423:THR:HG23	1.78	0.65
1:E:35:VAL:HG11	1:E:147:LEU:HB3	1.78	0.65
1:F:56:LEU:HD22	1:F:119:LEU:HD13	1.79	0.65
1:A:1164:THR:N	1:A:1167:GLY:O	2.25	0.65
1:B:450:ASN:HA	1:B:483:ARG:HH11	1.62	0.65
1:C:2652:ILE:HG12	1:C:2722:VAL:HG22	1.79	0.65
1:F:35:VAL:HG11	1:F:147:LEU:HB3	1.78	0.64
1:A:450:ASN:HA	1:A:483:ARG:HH11	1.62	0.64
1:A:683:GLY:HA2	1:A:700:ASN:HB2	1.77	0.64
1:A:1412:HIS:HD2	1:A:1413:PRO:HD2	1.61	0.64
1:B:793:ARG:HD3	1:B:2435:LEU:CG	2.27	0.64
1:B:1488:VAL:HG21	1:B:1580:PRO:HD2	1.77	0.64
1:D:2652:ILE:HG12	1:D:2722:VAL:HG22	1.79	0.64
1:D:2679:ALA:HB3	1:D:2762:VAL:HG12	1.78	0.64
1:E:1488:VAL:HG21	1:E:1580:PRO:HD2	1.77	0.64
1:F:42:GLU:HB3	1:F:349:ARG:HG3	1.79	0.64
1:F:793:ARG:HD3	1:F:2435:LEU:CG	2.27	0.64
1:F:2876:LEU:HD11	1:F:2886:ILE:HD11	1.79	0.64
1:B:42:GLU:HB3	1:B:349:ARG:HG3	1.79	0.64
1:B:207:MET:HE2	1:B:292:VAL:HG21	1.78	0.64
1:B:929:GLU:O	1:B:930:PRO:CG	2.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:203:ASP:OD1	1:F:204:ARG:N	2.29	0.64
1:F:1164:THR:N	1:F:1167:GLY:O	2.25	0.64
1:A:666:VAL:HG21	1:A:904:VAL:HB	1.78	0.64
1:A:793:ARG:HD3	1:A:2435:LEU:CG	2.27	0.64
1:B:56:LEU:HD22	1:B:119:LEU:HD13	1.79	0.64
1:C:666:VAL:HG21	1:C:904:VAL:HB	1.78	0.64
1:C:793:ARG:HD3	1:C:2435:LEU:CG	2.27	0.64
1:C:1412:HIS:ND1	1:C:1415:GLY:O	2.26	0.64
1:D:666:VAL:HG21	1:D:904:VAL:HB	1.78	0.64
1:E:2252:VAL:HA	1:E:2255:ARG:HE	1.62	0.64
1:E:2652:ILE:HG12	1:E:2722:VAL:HG22	1.79	0.64
1:E:1417:LEU:O	1:E:1423:THR:OG1	2.14	0.64
1:C:450:ASN:HA	1:C:483:ARG:HH11	1.62	0.64
1:D:793:ARG:HD3	1:D:2435:LEU:CG	2.28	0.64
1:D:2094:HIS:CG	1:D:2096:VAL:CG1	2.75	0.64
1:E:929:GLU:O	1:E:930:PRO:CG	2.45	0.64
1:B:1412:HIS:HD2	1:B:1413:PRO:HD2	1.61	0.64
1:C:929:GLU:O	1:C:930:PRO:CG	2.45	0.64
1:D:1412:HIS:HD2	1:D:1413:PRO:HD2	1.61	0.64
1:F:643:ILE:HD12	1:F:915:PHE:HZ	1.62	0.64
1:C:1132:LEU:HD11	1:C:1192:PHE:HB3	1.78	0.64
1:C:2252:VAL:HA	1:C:2255:ARG:HE	1.62	0.64
1:D:2252:VAL:HA	1:D:2255:ARG:HE	1.62	0.64
1:E:34:LEU:O	1:E:38:LEU:N	2.25	0.64
1:F:2176:LEU:HG	1:F:2180:LYS:HE3	1.80	0.64
1:B:1087:PHE:HB3	1:C:117:LYS:HZ3	1.63	0.64
1:B:2176:LEU:HG	1:B:2180:LYS:HE3	1.80	0.64
1:C:56:LEU:HD22	1:C:119:LEU:HD13	1.79	0.64
1:C:643:ILE:HD12	1:C:915:PHE:HZ	1.62	0.64
1:C:2679:ALA:HB3	1:C:2762:VAL:HG12	1.78	0.64
1:D:500:GLN:O	1:D:504:LYS:N	2.24	0.64
1:E:803:GLU:OE1	1:E:2431:THR:HG22	1.98	0.64
1:A:42:GLU:HB3	1:A:349:ARG:HG3	1.79	0.64
1:A:803:GLU:OE1	1:A:2431:THR:HG22	1.98	0.64
1:B:2252:VAL:HA	1:B:2255:ARG:HE	1.62	0.64
1:C:42:GLU:HB3	1:C:349:ARG:HG3	1.79	0.64
1:E:56:LEU:HD22	1:E:119:LEU:HD13	1.78	0.63
1:E:207:MET:HE2	1:E:292:VAL:HG21	1.78	0.63
1:E:3073:MET:O	1:B:2865:ARG:NH2	2.32	0.63
1:F:1536:ASN:HA	1:F:1679:TRP:HB3	1.78	0.63
1:C:360:LEU:HD12	1:C:363:LEU:HD23	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1536:ASN:HA	1:D:1679:TRP:HB3	1.79	0.63
1:F:2706:PRO:HG2	1:F:2709:ILE:HG23	1.79	0.63
1:F:3073:MET:O	1:A:2865:ARG:NH2	2.32	0.63
1:A:207:MET:HE2	1:A:292:VAL:HG21	1.78	0.63
1:B:2094:HIS:CG	1:B:2096:VAL:CG1	2.75	0.63
1:F:2865:ARG:NH2	1:A:3073:MET:O	2.32	0.63
1:A:1622:PRO:HD3	1:A:1685:LEU:HD11	1.81	0.63
1:B:1072:TRP:NE1	1:B:1077:VAL:HG22	2.14	0.63
1:B:1417:LEU:O	1:B:1423:THR:OG1	2.14	0.63
1:B:1536:ASN:HA	1:B:1679:TRP:HB3	1.79	0.63
1:B:2706:PRO:HG2	1:B:2709:ILE:HG23	1.79	0.63
1:C:207:MET:HE2	1:C:292:VAL:HG21	1.78	0.63
1:B:2876:LEU:HD11	1:B:2886:ILE:HD11	1.79	0.63
1:E:500:GLN:O	1:E:504:LYS:N	2.24	0.63
1:E:1315:ARG:HH21	1:E:1323:GLU:HG2	1.64	0.63
1:E:1622:PRO:HD3	1:E:1685:LEU:HD11	1.81	0.63
1:F:957:LEU:O	1:F:1034:GLU:CB	2.46	0.63
1:F:2652:ILE:HG12	1:F:2722:VAL:HG22	1.79	0.63
1:A:939:ALA:O	1:A:940:ARG:CG	2.47	0.63
1:A:2297:ARG:H	1:A:2297:ARG:HD3	1.64	0.63
1:B:939:ALA:O	1:B:940:ARG:CG	2.47	0.63
1:C:2112:ARG:N	1:C:2115:HIS:CG	2.57	0.63
1:E:585:HIS:CD2	1:E:586:SER:H	2.17	0.63
1:E:974:THR:CG2	1:E:977:GLN:HB3	2.29	0.63
1:E:2948:GLN:HG2	1:E:2951:ARG:HH21	1.64	0.63
1:F:2297:ARG:H	1:F:2297:ARG:HD3	1.64	0.63
1:A:974:THR:CG2	1:A:977:GLN:HB3	2.29	0.63
1:B:750:LEU:HD12	1:B:827:LEU:HD11	1.81	0.63
1:B:2092:THR:HA	1:B:2189:PHE:HB2	1.81	0.63
1:C:803:GLU:OE1	1:C:2431:THR:HG22	1.98	0.63
1:C:974:THR:CG2	1:C:977:GLN:HB3	2.29	0.63
1:D:803:GLU:OE1	1:D:2431:THR:HG22	1.98	0.63
1:D:939:ALA:O	1:D:940:ARG:CG	2.47	0.63
1:D:974:THR:CG2	1:D:977:GLN:HB3	2.29	0.63
1:D:3073:MET:O	1:C:2865:ARG:NH2	2.32	0.63
1:E:1072:TRP:NE1	1:E:1077:VAL:HG22	2.14	0.63
1:E:2297:ARG:HD3	1:E:2297:ARG:H	1.64	0.63
1:E:2865:ARG:NH2	1:B:3073:MET:O	2.32	0.63
1:E:3080:ARG:HH11	1:E:3080:ARG:CG	2.07	0.63
1:F:974:THR:CG2	1:F:977:GLN:HB3	2.29	0.63
1:F:1376:VAL:HA	1:F:1470:LEU:HD13	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2092:THR:HA	1:F:2189:PHE:HB2	1.81	0.63
1:F:2752:ASP:HB3	1:A:2752:ASP:HB3	1.81	0.63
1:B:585:HIS:CD2	1:B:586:SER:H	2.17	0.63
1:B:1315:ARG:HH21	1:B:1323:GLU:HG2	1.64	0.63
1:C:939:ALA:O	1:C:940:ARG:CG	2.47	0.63
1:D:1072:TRP:NE1	1:D:1077:VAL:HG22	2.14	0.63
1:D:2096:VAL:HG13	1:D:2097:ALA:N	2.14	0.63
1:E:793:ARG:HD3	1:E:2435:LEU:CG	2.27	0.63
1:E:939:ALA:O	1:E:940:ARG:CG	2.47	0.63
1:E:1376:VAL:HA	1:E:1470:LEU:HD13	1.81	0.63
1:F:803:GLU:OE1	1:F:2431:THR:HG22	1.98	0.63
1:F:1622:PRO:HD3	1:F:1685:LEU:HD11	1.81	0.63
1:F:2047:THR:OG1	1:F:2205:ASP:OD2	2.17	0.63
1:A:2086:SER:O	1:A:2089:PHE:CG	2.52	0.63
1:A:2092:THR:HA	1:A:2189:PHE:HB2	1.81	0.63
1:B:1095:LEU:HD12	1:B:1096:THR:H	1.64	0.63
1:B:2047:THR:OG1	1:B:2205:ASP:OD2	2.17	0.63
1:D:1376:VAL:HA	1:D:1470:LEU:HD13	1.81	0.63
1:E:1702:GLU:OE2	1:E:1711:VAL:HG13	1.99	0.63
1:E:2176:LEU:HG	1:E:2180:LYS:HE3	1.80	0.63
1:F:750:LEU:HD12	1:F:827:LEU:HD11	1.81	0.63
1:F:1412:HIS:ND1	1:F:1415:GLY:O	2.26	0.63
1:F:2252:VAL:HA	1:F:2255:ARG:HE	1.62	0.63
1:A:2092:THR:HG23	1:A:2092:THR:O	1.99	0.63
1:B:664:LEU:HD13	1:B:701:ALA:HB1	1.81	0.63
1:D:2865:ARG:NH2	1:C:3073:MET:O	2.32	0.62
1:E:360:LEU:HD12	1:E:363:LEU:HD23	1.80	0.62
1:E:932:GLU:O	1:E:936:ARG:CG	2.48	0.62
1:F:585:HIS:CD2	1:F:586:SER:H	2.17	0.62
1:F:1072:TRP:NE1	1:F:1077:VAL:HG22	2.14	0.62
1:F:2086:SER:O	1:F:2089:PHE:CG	2.52	0.62
1:A:117:LYS:HZ3	1:C:1087:PHE:HB3	1.64	0.62
1:A:1315:ARG:HH21	1:A:1323:GLU:HG2	1.64	0.62
1:A:3080:ARG:HH11	1:A:3080:ARG:CG	2.07	0.62
1:B:974:THR:CG2	1:B:977:GLN:HB3	2.29	0.62
1:B:1376:VAL:HA	1:B:1470:LEU:HD13	1.81	0.62
1:B:2086:SER:O	1:B:2089:PHE:CG	2.52	0.62
1:B:2173:ASP:OD2	1:B:2799:LYS:NZ	2.32	0.62
1:B:2297:ARG:HD3	1:B:2297:ARG:H	1.64	0.62
1:B:2652:ILE:HG12	1:B:2722:VAL:HG22	1.79	0.62
1:D:2047:THR:OG1	1:D:2205:ASP:OD2	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2173:ASP:OD2	1:D:2799:LYS:NZ	2.32	0.62
1:E:42:GLU:HB3	1:E:349:ARG:HG3	1.79	0.62
1:E:2092:THR:HA	1:E:2189:PHE:HB2	1.81	0.62
1:A:585:HIS:CD2	1:A:586:SER:H	2.17	0.62
1:C:1072:TRP:NE1	1:C:1077:VAL:HG22	2.14	0.62
1:C:1315:ARG:HH21	1:C:1323:GLU:HG2	1.64	0.62
1:E:238:SER:OG	1:E:249:THR:OG1	2.16	0.62
1:E:1095:LEU:HD12	1:E:1096:THR:H	1.64	0.62
1:F:34:LEU:O	1:F:38:LEU:N	2.25	0.62
1:A:1072:TRP:NE1	1:A:1077:VAL:HG22	2.14	0.62
1:A:2096:VAL:HG23	1:A:2097:ALA:N	2.14	0.62
1:A:2173:ASP:OD2	1:A:2799:LYS:NZ	2.32	0.62
1:B:803:GLU:OE1	1:B:2431:THR:HG22	1.98	0.62
1:B:2948:GLN:HG2	1:B:2951:ARG:HH21	1.64	0.62
1:C:1376:VAL:HA	1:C:1470:LEU:HD13	1.81	0.62
1:D:585:HIS:CD2	1:D:586:SER:H	2.17	0.62
1:E:2092:THR:HG23	1:E:2092:THR:O	1.99	0.62
1:B:3080:ARG:HG3	1:B:3080:ARG:NH1	2.09	0.62
1:D:750:LEU:HD12	1:D:827:LEU:HD11	1.81	0.62
1:D:1095:LEU:HD12	1:D:1096:THR:H	1.64	0.62
1:D:2092:THR:HA	1:D:2189:PHE:HB2	1.81	0.62
1:D:2948:GLN:HG2	1:D:2951:ARG:HH21	1.64	0.62
1:F:932:GLU:O	1:F:936:ARG:CG	2.48	0.62
1:F:2096:VAL:HG13	1:F:2097:ALA:N	2.14	0.62
1:F:2753:LYS:HZ2	1:A:2748:GLU:HG2	1.64	0.62
1:F:2765:GLY:HA2	1:F:2940:VAL:HG21	1.82	0.62
1:A:360:LEU:HD12	1:A:363:LEU:HD23	1.80	0.62
1:B:932:GLU:O	1:B:936:ARG:CG	2.47	0.62
1:B:1431:ALA:HB3	1:B:1459:THR:HG21	1.82	0.62
1:B:1702:GLU:OE2	1:B:1711:VAL:HG13	1.99	0.62
1:C:1095:LEU:HD12	1:C:1096:THR:H	1.64	0.62
1:C:1417:LEU:O	1:C:1423:THR:OG1	2.14	0.62
1:D:1315:ARG:HH21	1:D:1323:GLU:HG2	1.64	0.62
1:D:2176:LEU:HG	1:D:2180:LYS:HE3	1.80	0.62
1:D:2297:ARG:HD3	1:D:2297:ARG:H	1.64	0.62
1:A:1417:LEU:O	1:A:1423:THR:OG1	2.14	0.62
1:B:360:LEU:HD12	1:B:363:LEU:HD23	1.80	0.62
1:C:238:SER:OG	1:C:249:THR:OG1	2.15	0.62
1:C:932:GLU:O	1:C:936:ARG:CG	2.48	0.62
1:C:2237:LEU:HB2	1:C:2287:LEU:HD11	1.82	0.62
1:D:932:GLU:O	1:D:936:ARG:CG	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1417:LEU:O	1:D:1423:THR:OG1	2.14	0.62
1:D:2086:SER:O	1:D:2089:PHE:CG	2.52	0.62
1:E:2610:ARG:HB2	1:B:2558:LEU:HD21	1.82	0.62
1:F:2407:GLU:CG	1:F:2411:LYS:HE3	2.29	0.62
1:A:2176:LEU:HG	1:A:2180:LYS:HE3	1.80	0.62
1:B:2092:THR:O	1:B:2092:THR:HG23	1.99	0.62
1:B:2765:GLY:HA2	1:B:2940:VAL:HG21	1.82	0.62
1:F:939:ALA:O	1:F:940:ARG:CG	2.47	0.62
1:F:971:ALA:O	1:F:974:THR:CG2	2.48	0.62
1:F:2948:GLN:HG2	1:F:2951:ARG:HH21	1.64	0.62
1:A:1353:PRO:HG3	1:A:1702:GLU:OE2	2.00	0.62
1:B:1622:PRO:HD3	1:B:1685:LEU:HD11	1.81	0.62
1:C:2092:THR:HG23	1:C:2092:THR:O	1.99	0.62
1:D:971:ALA:O	1:D:974:THR:CG2	2.48	0.62
1:D:2092:THR:HG23	1:D:2092:THR:O	1.99	0.62
1:D:2237:LEU:HB2	1:D:2287:LEU:HD11	1.82	0.62
1:E:664:LEU:HD13	1:E:701:ALA:HB1	1.81	0.62
1:E:1695:LEU:CD2	1:F:257:ARG:HH12	2.13	0.62
1:F:2173:ASP:OD2	1:F:2799:LYS:NZ	2.32	0.62
1:A:971:ALA:O	1:A:974:THR:CG2	2.48	0.62
1:A:1702:GLU:OE2	1:A:1711:VAL:HG13	1.99	0.62
1:B:1725:SER:HB3	1:C:260:LEU:HD13	1.82	0.62
1:C:2086:SER:O	1:C:2089:PHE:CG	2.52	0.62
1:C:2176:LEU:HG	1:C:2180:LYS:HE3	1.80	0.62
1:A:1431:ALA:HB3	1:A:1459:THR:HG21	1.82	0.62
1:C:971:ALA:O	1:C:974:THR:CG2	2.48	0.62
1:C:2047:THR:OG1	1:C:2205:ASP:OD2	2.17	0.62
1:D:1622:PRO:HD3	1:D:1685:LEU:HD11	1.81	0.61
1:D:2752:ASP:HB3	1:C:2752:ASP:HB3	1.81	0.61
1:E:750:LEU:HD12	1:E:827:LEU:HD11	1.81	0.61
1:E:1431:ALA:HB3	1:E:1459:THR:HG21	1.82	0.61
1:F:2092:THR:HG23	1:F:2092:THR:O	1.99	0.61
1:A:260:LEU:HD13	1:C:1725:SER:HB3	1.82	0.61
1:A:1725:SER:HB3	1:B:260:LEU:HD13	1.82	0.61
1:B:2237:LEU:HB2	1:B:2287:LEU:HD11	1.82	0.61
1:C:924:LEU:O	1:C:929:GLU:N	2.30	0.61
1:D:409:LYS:HD2	1:D:933:VAL:HA	1.82	0.61
1:F:360:LEU:HD12	1:F:363:LEU:HD23	1.80	0.61
1:A:34:LEU:H	1:A:393:VAL:HG21	1.65	0.61
1:A:932:GLU:O	1:A:936:ARG:CG	2.48	0.61
1:A:1695:LEU:CD2	1:B:257:ARG:HH12	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2047:THR:OG1	1:A:2205:ASP:OD2	2.17	0.61
1:B:971:ALA:O	1:B:974:THR:CG2	2.48	0.61
1:C:585:HIS:CD2	1:C:586:SER:H	2.17	0.61
1:C:1622:PRO:HD3	1:C:1685:LEU:HD11	1.81	0.61
1:C:1702:GLU:OE2	1:C:1711:VAL:HG13	1.99	0.61
1:C:2469:LEU:HD11	1:C:2653:VAL:HB	1.82	0.61
1:C:3058:ARG:HB2	1:C:3089:LEU:HB2	1.82	0.61
1:D:664:LEU:HD13	1:D:701:ALA:HB1	1.81	0.61
1:D:1725:SER:HB3	1:E:260:LEU:HD13	1.82	0.61
1:D:2765:GLY:HA2	1:D:2940:VAL:HG21	1.82	0.61
1:D:3058:ARG:HB2	1:D:3089:LEU:HB2	1.82	0.61
1:E:2086:SER:O	1:E:2089:PHE:CG	2.53	0.61
1:F:924:LEU:O	1:F:929:GLU:N	2.30	0.61
1:F:1353:PRO:HG3	1:F:1702:GLU:OE2	2.00	0.61
1:B:680:ALA:HA	1:B:685:ALA:HB2	1.83	0.61
1:B:1695:LEU:CD2	1:C:257:ARG:HH12	2.13	0.61
1:B:2096:VAL:HG13	1:B:2097:ALA:N	2.14	0.61
1:C:106:ALA:HB1	1:C:112:PRO:HB2	1.82	0.61
1:C:409:LYS:HD2	1:C:933:VAL:HA	1.82	0.61
1:C:511:ARG:HH11	1:C:543:GLY:HA3	1.65	0.61
1:C:1353:PRO:HG3	1:C:1702:GLU:OE2	2.00	0.61
1:D:680:ALA:HA	1:D:685:ALA:HB2	1.83	0.61
1:E:203:ASP:O	1:E:205:PRO:HD3	2.01	0.61
1:E:2558:LEU:HD21	1:B:2610:ARG:HB2	1.82	0.61
1:F:664:LEU:HD13	1:F:701:ALA:HB1	1.81	0.61
1:F:1315:ARG:HH21	1:F:1323:GLU:HG2	1.64	0.61
1:F:3058:ARG:HB2	1:F:3089:LEU:HB2	1.82	0.61
1:A:257:ARG:HH12	1:C:1695:LEU:CD2	2.13	0.61
1:A:1095:LEU:HD12	1:A:1096:THR:H	1.64	0.61
1:B:3058:ARG:HB2	1:B:3089:LEU:HB2	1.82	0.61
1:C:203:ASP:O	1:C:205:PRO:HD3	2.01	0.61
1:C:680:ALA:HA	1:C:685:ALA:HB2	1.83	0.61
1:C:750:LEU:HD12	1:C:827:LEU:HD11	1.81	0.61
1:C:2765:GLY:HA2	1:C:2940:VAL:HG21	1.82	0.61
1:C:2948:GLN:HG2	1:C:2951:ARG:HH21	1.64	0.61
1:E:1725:SER:HB3	1:F:260:LEU:HD13	1.82	0.61
1:E:2047:THR:OG1	1:E:2205:ASP:OD2	2.17	0.61
1:F:2237:LEU:HB2	1:F:2287:LEU:HD11	1.82	0.61
1:F:2558:LEU:HD21	1:A:2610:ARG:HB2	1.82	0.61
1:A:2948:GLN:HG2	1:A:2951:ARG:HH21	1.64	0.61
1:B:203:ASP:O	1:B:205:PRO:HD3	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2297:ARG:H	1:C:2297:ARG:HD3	1.64	0.61
1:D:1353:PRO:HG3	1:D:1702:GLU:OE2	2.00	0.61
1:E:2096:VAL:HG13	1:E:2097:ALA:N	2.14	0.61
1:E:2237:LEU:HB2	1:E:2287:LEU:HD11	1.82	0.61
1:E:2752:ASP:HB3	1:B:2752:ASP:HB3	1.81	0.61
1:F:34:LEU:H	1:F:393:VAL:HG21	1.65	0.61
1:F:164:ALA:HA	1:F:178:LEU:HD13	1.82	0.61
1:A:438:THR:HA	1:A:880:HIS:HE1	1.66	0.61
1:C:2092:THR:HA	1:C:2189:PHE:HB2	1.81	0.61
1:C:2096:VAL:HG23	1:C:2097:ALA:N	2.14	0.61
1:D:2212:TRP:HA	1:D:2229:LYS:HD3	1.83	0.61
1:E:924:LEU:O	1:E:929:GLU:N	2.30	0.61
1:E:1353:PRO:HG3	1:E:1702:GLU:OE2	2.00	0.61
1:E:2765:GLY:HA2	1:E:2940:VAL:HG21	1.82	0.61
1:F:203:ASP:O	1:F:205:PRO:HD3	2.00	0.61
1:F:409:LYS:HD2	1:F:933:VAL:HA	1.82	0.61
1:F:680:ALA:HA	1:F:685:ALA:HB2	1.83	0.61
1:F:1702:GLU:OE2	1:F:1711:VAL:HG13	1.99	0.61
1:A:664:LEU:HD13	1:A:701:ALA:HB1	1.81	0.61
1:A:2469:LEU:HD11	1:A:2653:VAL:HB	1.83	0.61
1:A:2962:ASP:OD1	1:A:2962:ASP:N	2.34	0.61
1:B:34:LEU:O	1:B:38:LEU:N	2.25	0.61
1:B:34:LEU:H	1:B:393:VAL:HG21	1.65	0.61
1:B:438:THR:HA	1:B:880:HIS:HE1	1.66	0.61
1:B:2334:HIS:HD2	1:B:2391:LYS:HG3	1.66	0.61
1:C:488:ASN:HA	1:C:521:VAL:HB	1.83	0.61
1:C:664:LEU:HD13	1:C:701:ALA:HB1	1.81	0.61
1:C:2212:TRP:HA	1:C:2229:LYS:HD3	1.83	0.61
1:E:575:HIS:HD2	1:E:644:LEU:HD22	1.66	0.61
1:E:2173:ASP:OD2	1:E:2799:LYS:NZ	2.32	0.61
1:E:2212:TRP:HA	1:E:2229:LYS:HD3	1.83	0.61
1:F:961:ARG:HE	1:F:1196:GLY:N	1.97	0.61
1:A:511:ARG:HH11	1:A:543:GLY:HA3	1.65	0.61
1:B:126:VAL:HG12	1:B:182:ALA:HB1	1.83	0.61
1:B:1353:PRO:HG3	1:B:1702:GLU:OE2	2.00	0.61
1:C:438:THR:HA	1:C:880:HIS:HE1	1.66	0.61
1:C:980:GLU:HB2	1:C:989:HIS:HB2	1.83	0.61
1:D:2469:LEU:HD11	1:D:2653:VAL:HB	1.82	0.61
1:D:2558:LEU:HD21	1:C:2610:ARG:HB2	1.82	0.61
1:A:575:HIS:HD2	1:A:644:LEU:HD22	1.66	0.61
1:A:750:LEU:HD12	1:A:827:LEU:HD11	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2212:TRP:HA	1:A:2229:LYS:HD3	1.83	0.61
1:C:1431:ALA:HB3	1:C:1459:THR:HG21	1.82	0.61
1:C:2372:MET:HB3	1:C:2394:LEU:HD22	1.83	0.61
1:D:438:THR:HA	1:D:880:HIS:HE1	1.66	0.61
1:D:488:ASN:HA	1:D:521:VAL:HB	1.83	0.61
1:D:1412:HIS:ND1	1:D:1415:GLY:O	2.26	0.61
1:D:1702:GLU:OE2	1:D:1711:VAL:HG13	1.99	0.61
1:E:164:ALA:HA	1:E:178:LEU:HD13	1.82	0.61
1:E:438:THR:HA	1:E:880:HIS:HE1	1.66	0.61
1:E:488:ASN:HA	1:E:521:VAL:HB	1.83	0.61
1:E:971:ALA:O	1:E:974:THR:CG2	2.48	0.61
1:F:1532:ILE:HA	1:F:1544:ILE:HG12	1.83	0.61
1:F:2610:ARG:HB2	1:A:2558:LEU:HD21	1.82	0.61
1:F:2647:VAL:HA	1:F:2650:TRP:HD1	1.66	0.61
1:A:203:ASP:O	1:A:205:PRO:HD3	2.01	0.61
1:A:488:ASN:HA	1:A:521:VAL:HB	1.83	0.61
1:A:1376:VAL:HA	1:A:1470:LEU:HD13	1.81	0.61
1:A:3058:ARG:HB2	1:A:3089:LEU:HB2	1.82	0.61
1:B:106:ALA:HB1	1:B:112:PRO:HB2	1.82	0.61
1:B:511:ARG:HH11	1:B:543:GLY:HA3	1.65	0.61
1:D:980:GLU:HB2	1:D:989:HIS:HB2	1.83	0.60
1:E:3058:ARG:HB2	1:E:3089:LEU:HB2	1.82	0.60
1:F:126:VAL:HG12	1:F:182:ALA:HB1	1.83	0.60
1:A:164:ALA:HA	1:A:178:LEU:HD13	1.83	0.60
1:A:2112:ARG:CG	1:A:2114:VAL:HG22	2.31	0.60
1:B:575:HIS:HD2	1:B:644:LEU:HD22	1.66	0.60
1:B:980:GLU:HB2	1:B:989:HIS:HB2	1.83	0.60
1:C:2712:GLU:HA	1:C:2717:VAL:HG11	1.83	0.60
1:D:511:ARG:HH11	1:D:543:GLY:HA3	1.66	0.60
1:D:575:HIS:HD2	1:D:644:LEU:HD22	1.66	0.60
1:D:924:LEU:O	1:D:929:GLU:N	2.30	0.60
1:D:2610:ARG:HB2	1:C:2558:LEU:HD21	1.82	0.60
1:E:687:GLY:O	1:E:695:ILE:N	2.34	0.60
1:E:980:GLU:HB2	1:E:989:HIS:HB2	1.83	0.60
1:F:980:GLU:HB2	1:F:989:HIS:HB2	1.83	0.60
1:F:1095:LEU:HD12	1:F:1096:THR:H	1.64	0.60
1:F:1417:LEU:O	1:F:1423:THR:OG1	2.14	0.60
1:A:924:LEU:O	1:A:929:GLU:N	2.30	0.60
1:A:2765:GLY:HA2	1:A:2940:VAL:HG21	1.82	0.60
1:D:1098:VAL:HG12	1:D:1100:ASP:H	1.66	0.60
1:D:2749:GLU:OE2	1:C:2749:GLU:HB3	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:580:ARG:HG2	1:E:590:LEU:HD21	1.83	0.60
1:F:238:SER:OG	1:F:249:THR:OG1	2.15	0.60
1:F:575:HIS:HD2	1:F:644:LEU:HD22	1.66	0.60
1:F:1431:ALA:HB3	1:F:1459:THR:HG21	1.81	0.60
1:F:3080:ARG:HH11	1:F:3080:ARG:CG	2.07	0.60
1:A:1989:PHE:HD1	1:A:1992:LYS:HZ3	1.49	0.60
1:A:2372:MET:HB3	1:A:2394:LEU:HD22	1.83	0.60
1:C:164:ALA:HA	1:C:178:LEU:HD13	1.82	0.60
1:C:1098:VAL:HG12	1:C:1100:ASP:H	1.66	0.60
1:E:2372:MET:HB3	1:E:2394:LEU:HD22	1.83	0.60
1:F:580:ARG:HG2	1:F:590:LEU:HD21	1.83	0.60
1:F:2334:HIS:HD2	1:F:2391:LYS:HG3	1.66	0.60
1:F:2431:THR:O	1:F:2431:THR:HG23	2.01	0.60
1:A:580:ARG:HG2	1:A:590:LEU:HD21	1.83	0.60
1:A:1724:TYR:OH	1:B:267:GLU:OE2	2.07	0.60
1:C:687:GLY:O	1:C:695:ILE:N	2.34	0.60
1:C:1532:ILE:HA	1:C:1544:ILE:HG12	1.83	0.60
1:C:2431:THR:O	1:C:2431:THR:HG23	2.01	0.60
1:D:688:ARG:O	1:D:872:ARG:NE	2.34	0.60
1:D:1695:LEU:CD2	1:E:257:ARG:HH12	2.13	0.60
1:D:2112:ARG:CG	1:D:2114:VAL:HG12	2.31	0.60
1:E:409:LYS:HD2	1:E:933:VAL:HA	1.82	0.60
1:E:1412:HIS:ND1	1:E:1415:GLY:O	2.26	0.60
1:E:1537:LEU:HB2	1:E:1541:GLN:H	1.67	0.60
1:F:511:ARG:HH11	1:F:543:GLY:HA3	1.66	0.60
1:F:2372:MET:HB3	1:F:2394:LEU:HD22	1.83	0.60
1:A:2056:PHE:HZ	1:A:2180:LYS:HE2	1.67	0.60
1:A:2712:GLU:HA	1:A:2717:VAL:HG11	1.83	0.60
1:B:500:GLN:O	1:B:504:LYS:N	2.24	0.60
1:C:2647:VAL:HA	1:C:2650:TRP:HD1	1.66	0.60
1:E:2056:PHE:HZ	1:E:2180:LYS:HE2	1.67	0.60
1:E:2334:HIS:HD2	1:E:2391:LYS:HG3	1.66	0.60
1:E:2431:THR:HG23	1:E:2431:THR:O	2.01	0.60
1:F:106:ALA:HB1	1:F:112:PRO:HB2	1.82	0.60
1:F:1020:THR:N	1:F:1035:VAL:CG2	2.59	0.60
1:F:2800:PHE:HE1	1:F:2812:LEU:HD22	1.67	0.60
1:A:409:LYS:HD2	1:A:933:VAL:HA	1.82	0.60
1:A:2237:LEU:HB2	1:A:2287:LEU:HD11	1.82	0.60
1:B:409:LYS:HD2	1:B:933:VAL:HA	1.82	0.60
1:B:1532:ILE:HA	1:B:1544:ILE:HG12	1.83	0.60
1:B:2431:THR:HG23	1:B:2431:THR:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1431:ALA:HB3	1:D:1459:THR:HG21	1.82	0.60
1:D:2334:HIS:HD2	1:D:2391:LYS:HG3	1.66	0.60
1:E:2712:GLU:HA	1:E:2717:VAL:HG11	1.83	0.60
1:E:2749:GLU:OE2	1:B:2749:GLU:HB3	2.02	0.60
1:E:2820:ILE:HD13	1:E:2943:MET:HG2	1.84	0.60
1:A:980:GLU:HB2	1:A:989:HIS:HB2	1.83	0.60
1:A:1537:LEU:HB2	1:A:1541:GLN:H	1.67	0.60
1:B:2372:MET:HB3	1:B:2394:LEU:HD22	1.83	0.60
1:C:2800:PHE:HE1	1:C:2812:LEU:HD22	1.67	0.60
1:D:670:GLY:O	1:D:682:ASN:ND2	2.35	0.60
1:D:1532:ILE:HA	1:D:1544:ILE:HG12	1.83	0.60
1:D:2431:THR:HG23	1:D:2431:THR:O	2.01	0.60
1:E:106:ALA:HB1	1:E:112:PRO:HB2	1.82	0.60
1:E:2647:VAL:HA	1:E:2650:TRP:HD1	1.66	0.60
1:F:2056:PHE:HZ	1:F:2180:LYS:HE2	1.67	0.60
1:A:106:ALA:HB1	1:A:112:PRO:HB2	1.82	0.60
1:A:1309:VAL:HG22	1:A:1331:ILE:HG12	1.84	0.60
1:A:1532:ILE:HA	1:A:1544:ILE:HG12	1.83	0.60
1:B:164:ALA:HA	1:B:178:LEU:HD13	1.82	0.60
1:B:670:GLY:O	1:B:682:ASN:ND2	2.35	0.60
1:B:2800:PHE:HE1	1:B:2812:LEU:HD22	1.67	0.60
1:C:34:LEU:H	1:C:393:VAL:HG21	1.65	0.60
1:C:1537:LEU:HB2	1:C:1541:GLN:H	1.67	0.60
1:E:670:GLY:O	1:E:682:ASN:ND2	2.35	0.60
1:E:2469:LEU:HD11	1:E:2653:VAL:HB	1.82	0.60
1:F:2469:LEU:HD11	1:F:2653:VAL:HB	1.82	0.60
1:F:2693:GLN:O	1:F:2697:HIS:ND1	2.33	0.60
1:B:688:ARG:O	1:B:872:ARG:NE	2.34	0.60
1:B:1098:VAL:HG12	1:B:1100:ASP:H	1.66	0.60
1:C:1435:VAL:HG11	1:C:1463:CYS:HB3	1.84	0.60
1:C:2112:ARG:CG	1:C:2114:VAL:HG22	2.31	0.60
1:D:1701:VAL:HG22	1:D:1732:LEU:HB2	1.84	0.60
1:F:2748:GLU:HG2	1:A:2753:LYS:HZ2	1.66	0.60
1:A:680:ALA:HA	1:A:685:ALA:HB2	1.83	0.60
1:A:687:GLY:O	1:A:695:ILE:N	2.34	0.60
1:B:2469:LEU:HD11	1:B:2653:VAL:HB	1.83	0.60
1:C:688:ARG:O	1:C:872:ARG:NE	2.34	0.60
1:C:1701:VAL:HG22	1:C:1732:LEU:HB2	1.84	0.60
1:D:1435:VAL:HG11	1:D:1463:CYS:HB3	1.84	0.59
1:D:2800:PHE:HE1	1:D:2812:LEU:HD22	1.67	0.59
1:E:34:LEU:H	1:E:393:VAL:HG21	1.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1309:VAL:HG22	1:E:1331:ILE:HG12	1.84	0.59
1:F:410:LEU:HB3	1:F:1025:VAL:HG21	1.84	0.59
1:F:1701:VAL:HG22	1:F:1732:LEU:HB2	1.84	0.59
1:F:2651:ASN:HD22	1:F:2718:VAL:HG12	1.67	0.59
1:A:238:SER:OG	1:A:249:THR:OG1	2.15	0.59
1:A:795:HIS:HB3	1:A:799:PHE:CZ	2.37	0.59
1:A:2461:VAL:HG11	1:A:2751:VAL:HG22	1.84	0.59
1:B:580:ARG:HG2	1:B:590:LEU:HD21	1.83	0.59
1:B:2112:ARG:CG	1:B:2114:VAL:HG22	2.31	0.59
1:B:2651:ASN:HD22	1:B:2718:VAL:HG12	1.67	0.59
1:C:126:VAL:HG12	1:C:182:ALA:HB1	1.83	0.59
1:C:410:LEU:HB3	1:C:1025:VAL:HG21	1.84	0.59
1:D:580:ARG:HG2	1:D:590:LEU:HD21	1.83	0.59
1:D:2056:PHE:HZ	1:D:2180:LYS:HE2	1.67	0.59
1:E:795:HIS:HB3	1:E:799:PHE:CZ	2.37	0.59
1:F:2712:GLU:HA	1:F:2717:VAL:HG11	1.83	0.59
1:A:2647:VAL:HA	1:A:2650:TRP:HD1	1.66	0.59
1:B:410:LEU:HB3	1:B:1025:VAL:HG21	1.84	0.59
1:B:836:VAL:HG12	1:B:837:VAL:H	1.67	0.59
1:C:34:LEU:O	1:C:38:LEU:N	2.25	0.59
1:C:795:HIS:HB3	1:C:799:PHE:CZ	2.37	0.59
1:C:2056:PHE:HZ	1:C:2180:LYS:HE2	1.67	0.59
1:C:2651:ASN:HD22	1:C:2718:VAL:HG12	1.67	0.59
1:D:2651:ASN:HD22	1:D:2718:VAL:HG12	1.67	0.59
1:E:680:ALA:HA	1:E:685:ALA:HB2	1.83	0.59
1:F:438:THR:HA	1:F:880:HIS:HE1	1.66	0.59
1:F:488:ASN:HA	1:F:521:VAL:HB	1.83	0.59
1:F:670:GLY:O	1:F:682:ASN:ND2	2.35	0.59
1:F:1098:VAL:HG12	1:F:1100:ASP:H	1.67	0.59
1:F:2667:THR:HG21	1:F:3058:ARG:NH1	2.17	0.59
1:A:2431:THR:HG23	1:A:2431:THR:O	2.01	0.59
1:B:2212:TRP:HA	1:B:2229:LYS:HD3	1.83	0.59
1:B:2962:ASP:OD1	1:B:2962:ASP:N	2.34	0.59
1:C:836:VAL:HG12	1:C:837:VAL:H	1.67	0.59
1:D:2753:LYS:NZ	1:C:2752:ASP:OD2	2.36	0.59
1:E:2112:ARG:CG	1:E:2114:VAL:HG22	2.31	0.59
1:F:836:VAL:HG12	1:F:837:VAL:H	1.67	0.59
1:F:2112:ARG:CG	1:F:2114:VAL:HG22	2.31	0.59
1:F:2403:ILE:HG23	1:F:2408:LEU:HD12	1.85	0.59
1:B:1435:VAL:HG11	1:B:1463:CYS:HB3	1.84	0.59
1:B:1724:TYR:OH	1:C:267:GLU:OE2	2.07	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:687:GLY:O	1:D:695:ILE:N	2.34	0.59
1:D:2749:GLU:HB3	1:C:2749:GLU:OE2	2.02	0.59
1:E:1701:VAL:HG22	1:E:1732:LEU:HB2	1.84	0.59
1:E:2749:GLU:HB3	1:B:2749:GLU:OE2	2.02	0.59
1:E:2753:LYS:NZ	1:B:2752:ASP:OD2	2.36	0.59
1:F:688:ARG:O	1:F:872:ARG:NE	2.34	0.59
1:F:2554:ALA:HB1	1:F:2614:LYS:HZ2	1.66	0.59
1:F:2820:ILE:HD13	1:F:2943:MET:HG2	1.84	0.59
1:A:462:GLN:HG3	1:A:468:PHE:HD1	1.68	0.59
1:A:688:ARG:O	1:A:872:ARG:NE	2.34	0.59
1:B:687:GLY:O	1:B:695:ILE:N	2.34	0.59
1:B:1095:LEU:HD22	1:B:1289:PRO:HA	1.85	0.59
1:B:2056:PHE:HZ	1:B:2180:LYS:HE2	1.67	0.59
1:C:580:ARG:HG2	1:C:590:LEU:HD21	1.83	0.59
1:D:1656:LYS:HG2	1:D:1660:LEU:HG	1.85	0.59
1:E:410:LEU:HB3	1:E:1025:VAL:HG21	1.84	0.59
1:E:511:ARG:HH11	1:E:543:GLY:HA3	1.65	0.59
1:E:836:VAL:HG12	1:E:837:VAL:H	1.67	0.59
1:E:1098:VAL:HG12	1:E:1100:ASP:H	1.66	0.59
1:E:3080:ARG:HG3	1:E:3080:ARG:NH1	2.09	0.59
1:F:1095:LEU:HD22	1:F:1289:PRO:HA	1.85	0.59
1:A:126:VAL:HG12	1:A:182:ALA:HB1	1.83	0.59
1:A:1098:VAL:HG12	1:A:1100:ASP:H	1.66	0.59
1:A:1701:VAL:HG22	1:A:1732:LEU:HB2	1.84	0.59
1:A:2800:PHE:HE1	1:A:2812:LEU:HD22	1.67	0.59
1:B:2403:ILE:HG23	1:B:2408:LEU:HD12	1.85	0.59
1:B:2712:GLU:HA	1:B:2717:VAL:HG11	1.84	0.59
1:B:2889:ILE:HG12	1:B:2922:LEU:HB3	1.84	0.59
1:C:670:GLY:O	1:C:682:ASN:ND2	2.35	0.59
1:D:2372:MET:HB3	1:D:2394:LEU:HD22	1.83	0.59
1:D:2461:VAL:HG11	1:D:2751:VAL:HG22	1.84	0.59
1:D:2647:VAL:HA	1:D:2650:TRP:HD1	1.66	0.59
1:E:1087:PHE:HB3	1:F:117:LYS:HZ3	1.67	0.59
1:F:1385:ARG:NE	1:F:2411:LYS:NZ	2.35	0.59
1:F:2521:VAL:HG13	1:F:2529:ARG:HH11	1.68	0.59
1:B:1309:VAL:HG22	1:B:1331:ILE:HG12	1.84	0.59
1:B:1656:LYS:HG2	1:B:1660:LEU:HG	1.84	0.59
1:B:2647:VAL:HA	1:B:2650:TRP:HD1	1.66	0.59
1:C:462:GLN:HG3	1:C:468:PHE:HD1	1.68	0.59
1:C:1336:VAL:HG12	1:C:1337:MET:HG3	1.85	0.59
1:C:1989:PHE:HD1	1:C:1992:LYS:HZ3	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2334:HIS:HD2	1:C:2391:LYS:HG3	1.66	0.59
1:D:836:VAL:HG12	1:D:837:VAL:H	1.67	0.59
1:D:1008:VAL:HG13	1:D:1008:VAL:O	2.03	0.59
1:D:1309:VAL:HG22	1:D:1331:ILE:HG12	1.84	0.59
1:D:2752:ASP:OD2	1:C:2753:LYS:NZ	2.36	0.59
1:F:1989:PHE:HD1	1:F:1992:LYS:HZ3	1.50	0.59
1:F:2212:TRP:HA	1:F:2229:LYS:HD3	1.83	0.59
1:F:2752:ASP:OD2	1:A:2753:LYS:NZ	2.36	0.59
1:F:2889:ILE:HG12	1:F:2922:LEU:HB3	1.84	0.59
1:A:656:THR:OG1	1:A:880:HIS:ND1	2.35	0.59
1:A:670:GLY:O	1:A:682:ASN:ND2	2.35	0.59
1:B:1537:LEU:HB2	1:B:1541:GLN:H	1.67	0.59
1:C:150:THR:O	1:C:152:PRO:HD3	2.03	0.59
1:C:2521:VAL:HG13	1:C:2529:ARG:HH11	1.68	0.59
1:D:795:HIS:HB3	1:D:799:PHE:CZ	2.37	0.59
1:E:1532:ILE:HA	1:E:1544:ILE:HG12	1.83	0.59
1:E:2889:ILE:HG12	1:E:2922:LEU:HB3	1.84	0.59
1:F:2407:GLU:CD	1:F:2411:LYS:HZ1	2.10	0.59
1:A:836:VAL:HG12	1:A:837:VAL:H	1.67	0.59
1:A:2521:VAL:HG13	1:A:2529:ARG:HH11	1.68	0.59
1:A:2889:ILE:HG12	1:A:2922:LEU:HB3	1.84	0.59
1:B:2012:GLY:C	1:C:2591:ARG:NH1	2.61	0.59
1:C:575:HIS:HD2	1:C:644:LEU:HD22	1.66	0.59
1:C:1656:LYS:HG2	1:C:1660:LEU:HG	1.84	0.59
1:D:1013:THR:CG2	1:D:1014:TRP:N	2.58	0.59
1:D:2521:VAL:HG13	1:D:2529:ARG:HH11	1.68	0.59
1:E:126:VAL:HG12	1:E:182:ALA:HB1	1.83	0.59
1:E:462:GLN:HG3	1:E:468:PHE:HD1	1.68	0.59
1:E:2583:PHE:HD1	1:B:2614:LYS:HZ1	1.51	0.59
1:F:1008:VAL:CG2	1:F:1019:PHE:HB3	2.33	0.59
1:F:1435:VAL:HG11	1:F:1463:CYS:HB3	1.84	0.59
1:F:2461:VAL:HG11	1:F:2751:VAL:HG22	1.84	0.59
1:A:34:LEU:O	1:A:38:LEU:N	2.25	0.59
1:A:1008:VAL:CG1	1:A:1019:PHE:HB3	2.33	0.59
1:A:1616:PRO:HG3	1:A:1668:LEU:HD13	1.85	0.59
1:A:2667:THR:HG21	1:A:3058:ARG:NH1	2.17	0.59
1:B:462:GLN:HG3	1:B:468:PHE:HD1	1.68	0.59
1:B:488:ASN:HA	1:B:521:VAL:HB	1.83	0.59
1:B:735:LYS:HD2	1:B:860:VAL:HG23	1.85	0.59
1:B:795:HIS:HB3	1:B:799:PHE:CZ	2.37	0.59
1:B:2820:ILE:HD13	1:B:2943:MET:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2173:ASP:OD2	1:C:2799:LYS:NZ	2.32	0.59
1:D:1616:PRO:HG3	1:D:1668:LEU:HD13	1.85	0.58
1:D:2012:GLY:C	1:E:2591:ARG:NH1	2.61	0.58
1:D:2712:GLU:HA	1:D:2717:VAL:HG11	1.84	0.58
1:E:1616:PRO:HG3	1:E:1668:LEU:HD13	1.85	0.58
1:E:1989:PHE:HD1	1:E:1992:LYS:HZ3	1.50	0.58
1:E:2748:GLU:HG2	1:B:2753:LYS:HZ2	1.68	0.58
1:F:784:GLU:OE2	1:F:787:LEU:HD12	2.03	0.58
1:F:1537:LEU:HB2	1:F:1541:GLN:H	1.67	0.58
1:A:2012:GLY:C	1:B:2591:ARG:NH1	2.61	0.58
1:B:656:THR:OG1	1:B:880:HIS:ND1	2.35	0.58
1:C:2124:ALA:O	1:C:2127:GLU:CG	2.51	0.58
1:C:2693:GLN:O	1:C:2697:HIS:ND1	2.33	0.58
1:C:2889:ILE:HG12	1:C:2922:LEU:HB3	1.84	0.58
1:D:2084:GLN:O	1:D:2087:GLN:CG	2.51	0.58
1:D:2667:THR:HG21	1:D:3058:ARG:NH1	2.17	0.58
1:D:2820:ILE:HD13	1:D:2943:MET:HG2	1.84	0.58
1:E:688:ARG:O	1:E:872:ARG:NE	2.34	0.58
1:E:735:LYS:HD2	1:E:860:VAL:HG23	1.85	0.58
1:E:1087:PHE:HB3	1:F:117:LYS:NZ	2.18	0.58
1:F:1616:PRO:HG3	1:F:1668:LEU:HD13	1.85	0.58
1:A:410:LEU:HB3	1:A:1025:VAL:HG21	1.84	0.58
1:A:1435:VAL:HG11	1:A:1463:CYS:HB3	1.84	0.58
1:A:2820:ILE:HD13	1:A:2943:MET:HG2	1.84	0.58
1:B:1616:PRO:HG3	1:B:1668:LEU:HD13	1.85	0.58
1:C:2667:THR:HG21	1:C:3058:ARG:NH1	2.18	0.58
1:E:2012:GLY:C	1:F:2591:ARG:NH1	2.61	0.58
1:F:735:LYS:HD2	1:F:860:VAL:HG23	1.85	0.58
1:F:2749:GLU:HB3	1:A:2749:GLU:OE2	2.02	0.58
1:F:2876:LEU:HB3	1:F:2881:VAL:HG12	1.86	0.58
1:A:33:ALA:O	1:A:37:ARG:N	2.35	0.58
1:A:784:GLU:OE2	1:A:787:LEU:HD12	2.04	0.58
1:C:129:VAL:HG13	1:C:356:PRO:HG2	1.85	0.58
1:C:1253:ARG:HG3	1:C:1253:ARG:NH1	2.18	0.58
1:C:1309:VAL:HG22	1:C:1331:ILE:HG12	1.84	0.58
1:C:2820:ILE:HD13	1:C:2943:MET:HG2	1.84	0.58
1:E:784:GLU:OE2	1:E:787:LEU:HD12	2.03	0.58
1:E:2461:VAL:HG11	1:E:2751:VAL:HG22	1.84	0.58
1:E:2667:THR:HG21	1:E:3058:ARG:NH1	2.17	0.58
1:F:462:GLN:HG3	1:F:468:PHE:HD1	1.68	0.58
1:F:687:GLY:O	1:F:695:ILE:N	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1008:VAL:HG23	1:F:1008:VAL:O	2.03	0.58
1:F:1336:VAL:HG12	1:F:1337:MET:HG3	1.85	0.58
1:F:2124:ALA:O	1:F:2127:GLU:CG	2.51	0.58
1:A:1087:PHE:HB3	1:B:117:LYS:NZ	2.18	0.58
1:A:2651:ASN:HD22	1:A:2718:VAL:HG12	1.67	0.58
1:B:1327:VAL:HB	1:B:1339:ALA:HB3	1.86	0.58
1:B:1336:VAL:HG12	1:B:1337:MET:HG3	1.85	0.58
1:C:1008:VAL:CG2	1:C:1019:PHE:HB3	2.33	0.58
1:D:1087:PHE:HB3	1:E:117:LYS:HZ3	1.67	0.58
1:D:2487:LEU:HD11	1:D:2495:LEU:HD12	1.86	0.58
1:E:2084:GLN:O	1:E:2087:GLN:CG	2.52	0.58
1:E:2124:ALA:O	1:E:2127:GLU:CG	2.51	0.58
1:F:513:SER:O	1:F:961:ARG:NE	2.36	0.58
1:F:621:SER:OG	1:F:643:ILE:HD13	2.04	0.58
1:F:2084:GLN:O	1:F:2087:GLN:CG	2.52	0.58
1:A:1656:LYS:HG2	1:A:1660:LEU:HG	1.85	0.58
1:A:2334:HIS:HD2	1:A:2391:LYS:HG3	1.66	0.58
1:C:621:SER:OG	1:C:643:ILE:HD13	2.04	0.58
1:C:1008:VAL:HG23	1:C:1008:VAL:O	2.03	0.58
1:D:476:GLU:HA	1:D:479:LEU:HB2	1.86	0.58
1:D:2124:ALA:O	1:D:2127:GLU:CG	2.51	0.58
1:E:1656:LYS:HG2	1:E:1660:LEU:HG	1.85	0.58
1:E:2246:ALA:C	1:E:2255:ARG:HH12	2.11	0.58
1:E:2521:VAL:HG13	1:E:2529:ARG:HH11	1.68	0.58
1:F:129:VAL:HG13	1:F:356:PRO:HG2	1.85	0.58
1:F:476:GLU:HA	1:F:479:LEU:HB2	1.86	0.58
1:F:795:HIS:HB3	1:F:799:PHE:CZ	2.37	0.58
1:F:2246:ALA:C	1:F:2255:ARG:HH12	2.12	0.58
1:A:735:LYS:HD2	1:A:860:VAL:HG23	1.85	0.58
1:B:33:ALA:O	1:B:37:ARG:N	2.35	0.58
1:B:150:THR:O	1:B:152:PRO:HD3	2.03	0.58
1:B:1008:VAL:CG2	1:B:1019:PHE:HB3	2.33	0.58
1:B:1013:THR:CG2	1:B:1014:TRP:N	2.58	0.58
1:B:2461:VAL:HG11	1:B:2751:VAL:HG22	1.84	0.58
1:B:2667:THR:HG21	1:B:3058:ARG:NH1	2.17	0.58
1:C:2686:MET:HE1	1:C:2935:LYS:NZ	2.19	0.58
1:D:2246:ALA:C	1:D:2255:ARG:HH12	2.11	0.58
1:D:2876:LEU:HB3	1:D:2881:VAL:HG12	1.86	0.58
1:E:127:PRO:HG3	1:E:183:GLN:HA	1.86	0.58
1:E:150:THR:O	1:E:152:PRO:HD3	2.03	0.58
1:E:2800:PHE:HE1	1:E:2812:LEU:HD22	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:150:THR:O	1:F:152:PRO:HD3	2.03	0.58
1:F:2749:GLU:OE2	1:A:2749:GLU:HB3	2.02	0.58
1:A:2591:ARG:NH1	1:C:2012:GLY:C	2.61	0.58
1:B:2084:GLN:O	1:B:2087:GLN:CG	2.52	0.58
1:C:476:GLU:HA	1:C:479:LEU:HB2	1.86	0.58
1:C:784:GLU:OE2	1:C:787:LEU:HD12	2.03	0.58
1:C:2084:GLN:O	1:C:2087:GLN:CG	2.52	0.58
1:C:2487:LEU:HD11	1:C:2495:LEU:HD12	1.86	0.58
1:D:784:GLU:OE2	1:D:787:LEU:HD12	2.04	0.58
1:D:2554:ALA:HB1	1:D:2614:LYS:HZ2	1.69	0.58
1:D:2591:ARG:NH1	1:F:2012:GLY:C	2.61	0.58
1:E:2787:THR:HA	1:E:2790:MET:HG3	1.86	0.58
1:A:127:PRO:HG3	1:A:183:GLN:HA	1.86	0.58
1:A:621:SER:OG	1:A:643:ILE:HD13	2.04	0.58
1:B:511:ARG:HD2	1:B:517:ILE:O	2.04	0.58
1:B:924:LEU:O	1:B:929:GLU:N	2.30	0.58
1:B:1989:PHE:HD1	1:B:1992:LYS:HZ3	1.49	0.58
1:B:2124:ALA:O	1:B:2127:GLU:CG	2.51	0.58
1:B:2693:GLN:O	1:B:2697:HIS:ND1	2.33	0.58
1:B:2876:LEU:HB3	1:B:2881:VAL:HG12	1.86	0.58
1:C:500:GLN:O	1:C:504:LYS:N	2.24	0.58
1:C:776:ASP:O	1:C:779:TRP:N	2.31	0.58
1:C:2461:VAL:HG11	1:C:2751:VAL:HG22	1.84	0.58
1:C:2876:LEU:HB3	1:C:2881:VAL:HG12	1.86	0.58
1:D:410:LEU:HB3	1:D:1025:VAL:HG21	1.84	0.58
1:D:462:GLN:HG3	1:D:468:PHE:HD1	1.68	0.58
1:D:1087:PHE:HB3	1:E:117:LYS:NZ	2.18	0.58
1:D:1253:ARG:HG3	1:D:1253:ARG:NH1	2.18	0.58
1:D:1537:LEU:HB2	1:D:1541:GLN:H	1.67	0.58
1:E:776:ASP:O	1:E:779:TRP:N	2.31	0.58
1:E:1008:VAL:CG1	1:E:1019:PHE:HB3	2.33	0.58
1:E:1095:LEU:HD22	1:E:1289:PRO:HA	1.85	0.58
1:E:1336:VAL:HG12	1:E:1337:MET:HG3	1.85	0.58
1:E:1435:VAL:HG11	1:E:1463:CYS:HB3	1.84	0.58
1:E:2554:ALA:HB1	1:E:2614:LYS:NZ	2.19	0.58
1:E:2748:GLU:HG2	1:B:2753:LYS:NZ	2.19	0.58
1:F:1656:LYS:HG2	1:F:1660:LEU:HG	1.84	0.58
1:A:3080:ARG:HG3	1:A:3080:ARG:NH1	2.09	0.58
1:B:476:GLU:HA	1:B:479:LEU:HB2	1.86	0.58
1:B:1087:PHE:HB3	1:C:117:LYS:NZ	2.19	0.58
1:B:2554:ALA:HB1	1:B:2614:LYS:NZ	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2787:THR:HA	1:B:2790:MET:HG3	1.86	0.58
1:C:441:ASP:OD2	1:C:443:LYS:HB3	2.04	0.58
1:C:2339:TRP:HB2	1:C:2398:LEU:HD11	1.86	0.58
1:D:1095:LEU:HD22	1:D:1289:PRO:HA	1.85	0.58
1:E:1091:LEU:HD13	1:E:1281:ALA:HB3	1.86	0.58
1:E:2487:LEU:HD11	1:E:2495:LEU:HD12	1.86	0.58
1:F:511:ARG:HD2	1:F:517:ILE:O	2.04	0.58
1:F:1405:ALA:HB3	1:F:1408:VAL:HG23	1.86	0.58
1:F:2686:MET:HE1	1:F:2935:LYS:NZ	2.19	0.58
1:A:2246:ALA:C	1:A:2255:ARG:HH12	2.12	0.58
1:A:2787:THR:HA	1:A:2790:MET:HG3	1.86	0.58
1:B:1701:VAL:HG22	1:B:1732:LEU:HB2	1.84	0.58
1:D:924:LEU:HA	1:D:928:ALA:HB3	1.87	0.57
1:D:1538:ARG:NH1	1:D:1722:PRO:HB3	2.18	0.57
1:D:3001:HIS:NE2	1:C:2724:GLN:HG2	2.19	0.57
1:F:958:TRP:CZ2	1:F:1131:SER:OG	2.52	0.57
1:F:2352:ILE:HG12	1:F:2412:ALA:HB1	1.86	0.57
1:F:2787:THR:HA	1:F:2790:MET:HG3	1.86	0.57
1:A:511:ARG:NH1	1:A:543:GLY:HA3	2.19	0.57
1:A:2124:ALA:O	1:A:2127:GLU:CG	2.51	0.57
1:B:784:GLU:OE2	1:B:787:LEU:HD12	2.03	0.57
1:B:1405:ALA:HB3	1:B:1408:VAL:HG23	1.86	0.57
1:C:511:ARG:NH1	1:C:543:GLY:HA3	2.19	0.57
1:C:2403:ILE:HG23	1:C:2408:LEU:HD12	1.85	0.57
1:D:2339:TRP:HB2	1:D:2398:LEU:HD11	1.86	0.57
1:D:2686:MET:HE1	1:D:2935:LYS:NZ	2.19	0.57
1:E:621:SER:OG	1:E:643:ILE:HD13	2.04	0.57
1:F:776:ASP:O	1:F:779:TRP:N	2.31	0.57
1:A:117:LYS:NZ	1:C:1087:PHE:HB3	2.19	0.57
1:A:150:THR:O	1:A:152:PRO:HD3	2.03	0.57
1:A:1091:LEU:HD13	1:A:1281:ALA:HB3	1.86	0.57
1:A:1095:LEU:HD22	1:A:1289:PRO:HA	1.85	0.57
1:A:1336:VAL:HG12	1:A:1337:MET:HG3	1.85	0.57
1:A:2403:ILE:HG23	1:A:2408:LEU:HD12	1.85	0.57
1:A:2876:LEU:HB3	1:A:2881:VAL:HG12	1.86	0.57
1:B:776:ASP:O	1:B:779:TRP:N	2.31	0.57
1:B:1253:ARG:HG3	1:B:1253:ARG:NH1	2.18	0.57
1:B:2246:ALA:C	1:B:2255:ARG:HH12	2.11	0.57
1:C:1537:LEU:HD11	1:C:1714:LEU:HB3	1.87	0.57
1:C:2554:ALA:HB1	1:C:2614:LYS:HZ2	1.67	0.57
1:D:1336:VAL:HG12	1:D:1337:MET:HG3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1445:VAL:HG23	1:D:1448:ALA:HB2	1.87	0.57
1:D:1537:LEU:HD11	1:D:1714:LEU:HB3	1.87	0.57
1:E:511:ARG:HD2	1:E:517:ILE:O	2.04	0.57
1:E:2961:LEU:HD23	1:E:2978:ARG:HB3	1.87	0.57
1:F:127:PRO:HG3	1:F:183:GLN:HA	1.86	0.57
1:F:441:ASP:OD2	1:F:443:LYS:HB3	2.04	0.57
1:F:511:ARG:NH1	1:F:543:GLY:HA3	2.20	0.57
1:F:1309:VAL:HG22	1:F:1331:ILE:HG12	1.84	0.57
1:F:2748:GLU:HG2	1:A:2753:LYS:NZ	2.19	0.57
1:F:2983:LEU:HB3	1:F:2987:PHE:O	2.05	0.57
1:A:1253:ARG:HG3	1:A:1253:ARG:NH1	2.18	0.57
1:A:2487:LEU:HD11	1:A:2495:LEU:HD12	1.86	0.57
1:B:441:ASP:OD2	1:B:443:LYS:HB3	2.04	0.57
1:B:2521:VAL:HG13	1:B:2529:ARG:HH11	1.68	0.57
1:C:1327:VAL:HB	1:C:1339:ALA:HB3	1.86	0.57
1:D:2846:ALA:HA	1:D:3001:HIS:O	2.05	0.57
1:F:924:LEU:HA	1:F:928:ALA:HB3	1.86	0.57
1:A:2339:TRP:HB2	1:A:2398:LEU:HD11	1.86	0.57
1:C:924:LEU:HA	1:C:928:ALA:HB3	1.87	0.57
1:C:1095:LEU:HD22	1:C:1289:PRO:HA	1.85	0.57
1:C:1538:ARG:NH1	1:C:1722:PRO:HB3	2.18	0.57
1:D:735:LYS:HD2	1:D:860:VAL:HG23	1.85	0.57
1:D:1008:VAL:CG1	1:D:1019:PHE:HB3	2.33	0.57
1:D:1017:ILE:HG23	1:D:1045:VAL:HG21	1.87	0.57
1:D:2403:ILE:HG23	1:D:2408:LEU:HD12	1.85	0.57
1:D:2724:GLN:HG2	1:C:3001:HIS:NE2	2.19	0.57
1:D:2748:GLU:HG2	1:C:2753:LYS:NZ	2.19	0.57
1:E:476:GLU:HA	1:E:479:LEU:HB2	1.86	0.57
1:E:1017:ILE:HG23	1:E:1045:VAL:HG21	1.87	0.57
1:E:2651:ASN:HD22	1:E:2718:VAL:HG12	1.67	0.57
1:E:2724:GLN:HG2	1:B:3001:HIS:NE2	2.20	0.57
1:E:2731:GLY:HA2	1:B:2845:PHE:CD1	2.38	0.57
1:E:2846:ALA:HA	1:E:3001:HIS:O	2.05	0.57
1:E:2865:ARG:NH1	1:B:3077:THR:O	2.38	0.57
1:A:2084:GLN:O	1:A:2087:GLN:CG	2.52	0.57
1:B:1008:VAL:O	1:B:1008:VAL:HG23	2.03	0.57
1:C:1405:ALA:HB3	1:C:1408:VAL:HG23	1.86	0.57
1:C:2622:GLY:HA2	1:C:2812:LEU:HD11	1.87	0.57
1:C:2709:ILE:O	1:C:2713:VAL:HG13	2.05	0.57
1:D:511:ARG:HD2	1:D:517:ILE:O	2.04	0.57
1:D:2889:ILE:HG12	1:D:2922:LEU:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2686:MET:HE1	1:E:2935:LYS:NZ	2.19	0.57
1:E:2709:ILE:O	1:E:2713:VAL:HG13	2.05	0.57
1:E:2752:ASP:OD2	1:B:2753:LYS:NZ	2.36	0.57
1:E:2876:LEU:HB3	1:E:2881:VAL:HG12	1.86	0.57
1:F:958:TRP:CD1	1:F:958:TRP:H	2.23	0.57
1:F:1253:ARG:HG3	1:F:1253:ARG:NH1	2.18	0.57
1:F:1445:VAL:HG23	1:F:1448:ALA:HB2	1.87	0.57
1:F:3001:HIS:NE2	1:A:2724:GLN:HG2	2.19	0.57
1:F:3077:THR:O	1:A:2865:ARG:NH1	2.38	0.57
1:A:441:ASP:OD2	1:A:443:LYS:HB3	2.04	0.57
1:A:1008:VAL:HG13	1:A:1008:VAL:O	2.03	0.57
1:A:2846:ALA:HA	1:A:3001:HIS:O	2.05	0.57
1:B:621:SER:OG	1:B:643:ILE:HD13	2.04	0.57
1:B:2846:ALA:HA	1:B:3001:HIS:O	2.05	0.57
1:C:735:LYS:HD2	1:C:860:VAL:HG23	1.85	0.57
1:C:1017:ILE:HG23	1:C:1045:VAL:HG21	1.87	0.57
1:C:1616:PRO:HG3	1:C:1668:LEU:HD13	1.85	0.57
1:D:2622:GLY:HA2	1:D:2812:LEU:HD11	1.87	0.57
1:E:511:ARG:NH1	1:E:543:GLY:HA3	2.19	0.57
1:E:2403:ILE:HG23	1:E:2408:LEU:HD12	1.85	0.57
1:E:2693:GLN:O	1:E:2697:HIS:ND1	2.33	0.57
1:F:1537:LEU:HD11	1:F:1714:LEU:HB3	1.87	0.57
1:A:511:ARG:HD2	1:A:517:ILE:O	2.04	0.57
1:A:2961:LEU:HD23	1:A:2978:ARG:HB3	1.87	0.57
1:C:2246:ALA:C	1:C:2255:ARG:HH12	2.11	0.57
1:C:2983:LEU:HB3	1:C:2987:PHE:O	2.05	0.57
1:D:1405:ALA:HB3	1:D:1408:VAL:HG23	1.86	0.57
1:D:2961:LEU:HD23	1:D:2978:ARG:HB3	1.87	0.57
1:E:1405:ALA:HB3	1:E:1408:VAL:HG23	1.86	0.57
1:E:2753:LYS:NZ	1:B:2748:GLU:HG2	2.19	0.57
1:F:1037:ASP:HA	1:F:1038:ALA:C	2.26	0.57
1:F:2865:ARG:NH1	1:A:3077:THR:O	2.38	0.57
1:A:2686:MET:HE1	1:A:2935:LYS:NZ	2.19	0.57
1:A:2709:ILE:O	1:A:2713:VAL:HG13	2.05	0.57
1:B:2521:VAL:HG13	1:B:2529:ARG:NH1	2.20	0.57
1:C:511:ARG:HD2	1:C:517:ILE:O	2.04	0.57
1:D:621:SER:OG	1:D:643:ILE:HD13	2.04	0.57
1:D:868:ARG:HB3	1:D:872:ARG:HH11	1.70	0.57
1:E:129:VAL:HG13	1:E:356:PRO:HG2	1.85	0.57
1:E:1008:VAL:HG13	1:E:1008:VAL:O	2.03	0.57
1:E:1126:ILE:O	1:E:1197:ARG:CG	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1327:VAL:HB	1:E:1339:ALA:HB3	1.86	0.57
1:E:3077:THR:O	1:B:2865:ARG:NH1	2.38	0.57
1:F:2554:ALA:HB1	1:F:2614:LYS:NZ	2.19	0.57
1:F:2753:LYS:NZ	1:A:2748:GLU:HG2	2.19	0.57
1:A:475:LEU:O	1:A:479:LEU:N	2.38	0.57
1:A:1001:ASP:O	1:A:1002:GLN:CG	2.53	0.57
1:A:1405:ALA:HB3	1:A:1408:VAL:HG23	1.86	0.57
1:B:127:PRO:HG3	1:B:183:GLN:HA	1.86	0.57
1:B:1126:ILE:O	1:B:1197:ARG:CG	2.53	0.57
1:B:2622:GLY:HA2	1:B:2812:LEU:HD11	1.86	0.57
1:B:2709:ILE:O	1:B:2713:VAL:HG13	2.05	0.57
1:C:1445:VAL:HG23	1:C:1448:ALA:HB2	1.87	0.57
1:C:2961:LEU:HD23	1:C:2978:ARG:HB3	1.87	0.57
1:D:1126:ILE:O	1:D:1197:ARG:CG	2.53	0.57
1:D:2753:LYS:NZ	1:C:2748:GLU:HG2	2.19	0.57
1:B:2686:MET:HE1	1:B:2935:LYS:NZ	2.19	0.57
1:C:127:PRO:HG3	1:C:183:GLN:HA	1.86	0.57
1:C:2846:ALA:HA	1:C:3001:HIS:O	2.05	0.57
1:D:441:ASP:OD2	1:D:443:LYS:HB3	2.04	0.56
1:D:511:ARG:NH1	1:D:543:GLY:HA3	2.19	0.56
1:D:2865:ARG:NH1	1:C:3077:THR:O	2.38	0.56
1:E:441:ASP:OD2	1:E:443:LYS:HB3	2.04	0.56
1:E:1637:VAL:HG21	1:E:1671:TRP:CG	2.40	0.56
1:F:2487:LEU:HD11	1:F:2495:LEU:HD12	1.86	0.56
1:F:2622:GLY:HA2	1:F:2812:LEU:HD11	1.87	0.56
1:B:1537:LEU:HD11	1:B:1714:LEU:HB3	1.87	0.56
1:C:2554:ALA:HB1	1:C:2614:LYS:NZ	2.19	0.56
1:D:1327:VAL:HB	1:D:1339:ALA:HB3	1.86	0.56
1:D:1637:VAL:HG21	1:D:1671:TRP:CG	2.40	0.56
1:D:1989:PHE:HD1	1:D:1992:LYS:HZ3	1.50	0.56
1:E:2521:VAL:HG13	1:E:2529:ARG:NH1	2.20	0.56
1:F:500:GLN:O	1:F:504:LYS:N	2.24	0.56
1:F:958:TRP:O	1:F:959:ALA:HB3	2.05	0.56
1:F:1001:ASP:O	1:F:1002:GLN:CG	2.53	0.56
1:F:2753:LYS:NZ	1:A:2752:ASP:OD2	2.36	0.56
1:A:1327:VAL:HB	1:A:1339:ALA:HB3	1.86	0.56
1:B:924:LEU:HA	1:B:928:ALA:HB3	1.86	0.56
1:B:1445:VAL:HG23	1:B:1448:ALA:HB2	1.87	0.56
1:C:1013:THR:CG2	1:C:1014:TRP:N	2.58	0.56
1:C:1420:THR:OG1	1:C:1485:HIS:NE2	2.38	0.56
1:D:1001:ASP:O	1:D:1002:GLN:CG	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2521:VAL:HG13	1:D:2529:ARG:NH1	2.20	0.56
1:D:2614:LYS:HZ1	1:C:2583:PHE:HD1	1.51	0.56
1:D:2787:THR:HA	1:D:2790:MET:HG3	1.86	0.56
1:E:868:ARG:HB3	1:E:872:ARG:HH11	1.70	0.56
1:E:924:LEU:HA	1:E:928:ALA:HB3	1.87	0.56
1:E:1537:LEU:HD11	1:E:1714:LEU:HB3	1.87	0.56
1:E:2957:PRO:HD3	1:E:2980:PRO:HB3	1.88	0.56
1:F:177:GLU:HB3	1:F:317:LEU:HD13	1.87	0.56
1:F:1327:VAL:HB	1:F:1339:ALA:HB3	1.86	0.56
1:F:1385:ARG:CD	1:F:2407:GLU:CD	2.73	0.56
1:F:1511:ASP:H	1:F:1514:ASP:HB2	1.71	0.56
1:F:2846:ALA:HA	1:F:3001:HIS:O	2.05	0.56
1:A:129:VAL:HG13	1:A:356:PRO:HG2	1.85	0.56
1:A:540:ASN:HD21	1:A:544:ILE:HG13	1.71	0.56
1:A:868:ARG:HB3	1:A:872:ARG:HH11	1.70	0.56
1:A:1420:THR:OG1	1:A:1485:HIS:NE2	2.39	0.56
1:A:1537:LEU:HD11	1:A:1714:LEU:HB3	1.87	0.56
1:A:2554:ALA:HB1	1:A:2614:LYS:NZ	2.19	0.56
1:B:129:VAL:HG13	1:B:356:PRO:HG2	1.85	0.56
1:B:511:ARG:NH1	1:B:543:GLY:HA3	2.19	0.56
1:B:868:ARG:HB3	1:B:872:ARG:HH11	1.70	0.56
1:B:1091:LEU:HD13	1:B:1281:ALA:HB3	1.86	0.56
1:B:1538:ARG:NH1	1:B:1722:PRO:HB3	2.18	0.56
1:B:2339:TRP:HB2	1:B:2398:LEU:HD11	1.86	0.56
1:C:177:GLU:HB3	1:C:317:LEU:HD13	1.87	0.56
1:C:475:LEU:O	1:C:479:LEU:N	2.37	0.56
1:C:1637:VAL:HG21	1:C:1671:TRP:CG	2.40	0.56
1:D:2957:PRO:HD3	1:D:2980:PRO:HB3	1.88	0.56
1:D:3077:THR:O	1:C:2865:ARG:NH1	2.38	0.56
1:E:1511:ASP:H	1:E:1514:ASP:HB2	1.71	0.56
1:E:2622:GLY:HA2	1:E:2812:LEU:HD11	1.87	0.56
1:F:2724:GLN:HG2	1:A:3001:HIS:NE2	2.19	0.56
1:A:476:GLU:HA	1:A:479:LEU:HB2	1.86	0.56
1:B:1017:ILE:HG23	1:B:1045:VAL:HG21	1.87	0.56
1:B:2983:LEU:HB3	1:B:2987:PHE:O	2.05	0.56
1:C:1091:LEU:HD13	1:C:1281:ALA:HB3	1.86	0.56
1:C:1511:ASP:H	1:C:1514:ASP:HB2	1.71	0.56
1:C:2787:THR:HA	1:C:2790:MET:HG3	1.86	0.56
1:D:2709:ILE:O	1:D:2713:VAL:HG13	2.05	0.56
1:E:2983:LEU:HB3	1:E:2987:PHE:O	2.05	0.56
1:F:490:LEU:HD23	1:F:523:SER:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2339:TRP:HB2	1:F:2398:LEU:HD11	1.86	0.56
1:A:1126:ILE:O	1:A:1197:ARG:CG	2.53	0.56
1:A:2957:PRO:HD3	1:A:2980:PRO:HB3	1.88	0.56
1:B:177:GLU:HB3	1:B:317:LEU:HD13	1.87	0.56
1:C:37:ARG:O	1:C:41:GLY:N	2.39	0.56
1:C:1126:ILE:O	1:C:1197:ARG:CG	2.53	0.56
1:D:776:ASP:O	1:D:779:TRP:N	2.31	0.56
1:D:2481:MET:O	1:D:2959:ARG:NH2	2.39	0.56
1:E:892:ILE:HG22	2:E:4000:FMN:HM82	1.88	0.56
1:E:2481:MET:O	1:E:2959:ARG:NH2	2.39	0.56
1:F:1013:THR:CG2	1:F:1014:TRP:N	2.58	0.56
1:F:1091:LEU:HD13	1:F:1281:ALA:HB3	1.86	0.56
1:F:1385:ARG:NH1	1:F:2411:LYS:CD	2.69	0.56
1:F:1538:ARG:NH1	1:F:1722:PRO:HB3	2.18	0.56
1:A:500:GLN:O	1:A:504:LYS:N	2.24	0.56
1:A:1445:VAL:HG23	1:A:1448:ALA:HB2	1.87	0.56
1:A:2622:GLY:HA2	1:A:2812:LEU:HD11	1.87	0.56
1:B:37:ARG:O	1:B:41:GLY:N	2.39	0.56
1:B:490:LEU:HD23	1:B:523:SER:HB2	1.87	0.56
1:B:1637:VAL:HG21	1:B:1671:TRP:CG	2.40	0.56
1:C:868:ARG:HB3	1:C:872:ARG:HH11	1.70	0.56
1:C:2521:VAL:HG13	1:C:2529:ARG:NH1	2.20	0.56
1:D:2983:LEU:HB3	1:D:2987:PHE:O	2.05	0.56
1:E:1010:LEU:O	1:E:1017:ILE:N	2.29	0.56
1:E:1496:SER:HB3	1:E:1578:ASP:HB3	1.88	0.56
1:E:2478:ARG:NH1	1:E:2482:GLU:OE1	2.39	0.56
1:F:892:ILE:HG22	2:F:4000:FMN:HM82	1.88	0.56
1:F:1637:VAL:HG21	1:F:1671:TRP:CG	2.40	0.56
1:A:1637:VAL:HG21	1:A:1671:TRP:CG	2.40	0.56
1:A:2303:ASP:OD1	1:A:2303:ASP:N	2.39	0.56
1:A:2481:MET:O	1:A:2959:ARG:NH2	2.39	0.56
1:A:2693:GLN:O	1:A:2697:HIS:ND1	2.33	0.56
1:B:540:ASN:HD21	1:B:544:ILE:HG13	1.71	0.56
1:B:2487:LEU:HD11	1:B:2495:LEU:HD12	1.86	0.56
1:D:475:LEU:O	1:D:479:LEU:N	2.37	0.56
1:D:540:ASN:HD21	1:D:544:ILE:HG13	1.71	0.56
1:D:1091:LEU:HD13	1:D:1281:ALA:HB3	1.86	0.56
1:E:37:ARG:O	1:E:41:GLY:N	2.39	0.56
1:E:1618:LEU:HG	1:E:1619:VAL:HG23	1.88	0.56
1:F:1126:ILE:O	1:F:1197:ARG:CG	2.53	0.56
1:F:2521:VAL:HG13	1:F:2529:ARG:NH1	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2709:ILE:O	1:F:2713:VAL:HG13	2.05	0.56
1:A:924:LEU:HA	1:A:928:ALA:HB3	1.86	0.56
1:A:2881:VAL:HG13	1:A:2885:ASP:HB2	1.88	0.56
1:B:892:ILE:HG22	2:B:4000:FMN:HM82	1.88	0.56
1:C:42:GLU:H	1:C:42:GLU:CD	2.14	0.56
1:C:2303:ASP:OD1	1:C:2303:ASP:N	2.39	0.56
1:C:2881:VAL:HG13	1:C:2885:ASP:HB2	1.88	0.56
1:C:2957:PRO:HD3	1:C:2980:PRO:HB3	1.88	0.56
1:D:892:ILE:HG22	2:D:4000:FMN:HM82	1.88	0.56
1:D:3073:MET:HE2	1:D:3089:LEU:HD11	1.88	0.56
1:F:37:ARG:O	1:F:41:GLY:N	2.39	0.56
1:F:144:GLY:O	1:F:148:THR:N	2.34	0.56
1:A:892:ILE:HG22	2:A:4000:FMN:HM82	1.88	0.56
1:A:2521:VAL:HG13	1:A:2529:ARG:NH1	2.20	0.56
1:C:892:ILE:HG22	2:C:4000:FMN:HM82	1.88	0.56
1:C:1001:ASP:O	1:C:1002:GLN:CG	2.53	0.56
1:D:2554:ALA:HB1	1:D:2614:LYS:NZ	2.19	0.56
1:D:2881:VAL:HG13	1:D:2885:ASP:HB2	1.88	0.56
1:E:2881:VAL:HG13	1:E:2885:ASP:HB2	1.88	0.56
1:E:3001:HIS:NE2	1:B:2724:GLN:HG2	2.19	0.56
1:F:2481:MET:O	1:F:2959:ARG:NH2	2.39	0.56
1:A:1511:ASP:H	1:A:1514:ASP:HB2	1.71	0.56
1:B:1001:ASP:O	1:B:1002:GLN:CG	2.53	0.56
1:B:1496:SER:HB3	1:B:1578:ASP:HB3	1.88	0.56
1:C:2478:ARG:NH1	1:C:2482:GLU:OE1	2.39	0.56
1:E:2339:TRP:HB2	1:E:2398:LEU:HD11	1.86	0.55
1:E:2743:ALA:HB3	1:E:2939:ALA:HB3	1.89	0.55
1:F:1037:ASP:OD2	1:F:1043:ARG:N	2.40	0.55
1:F:2478:ARG:NH1	1:F:2482:GLU:OE1	2.39	0.55
1:F:2961:LEU:HD23	1:F:2978:ARG:HB3	1.87	0.55
1:A:1017:ILE:HG23	1:A:1045:VAL:HG21	1.87	0.55
1:C:2481:MET:O	1:C:2959:ARG:NH2	2.39	0.55
1:D:975:GLU:CG	1:D:976:TRP:N	2.70	0.55
1:D:2478:ARG:NH1	1:D:2482:GLU:OE1	2.39	0.55
1:D:2962:ASP:OD1	1:D:2962:ASP:N	2.34	0.55
1:E:1001:ASP:O	1:E:1002:GLN:CG	2.53	0.55
1:E:2753:LYS:HZ2	1:B:2748:GLU:HG2	1.71	0.55
1:F:868:ARG:HB3	1:F:872:ARG:HH11	1.70	0.55
1:F:2845:PHE:CD1	1:A:2731:GLY:HA2	2.39	0.55
1:A:2983:LEU:HB3	1:A:2987:PHE:O	2.05	0.55
1:B:1511:ASP:H	1:B:1514:ASP:HB2	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2481:MET:O	1:B:2959:ARG:NH2	2.39	0.55
1:D:2704:ALA:O	1:D:2705:LYS:HD3	2.07	0.55
1:A:42:GLU:H	1:A:42:GLU:CD	2.14	0.55
1:A:144:GLY:O	1:A:148:THR:N	2.34	0.55
1:A:1496:SER:HB3	1:A:1578:ASP:HB3	1.89	0.55
1:A:2743:ALA:HB3	1:A:2939:ALA:HB3	1.88	0.55
1:B:42:GLU:CD	1:B:42:GLU:H	2.14	0.55
1:B:475:LEU:O	1:B:479:LEU:N	2.37	0.55
1:D:1511:ASP:H	1:D:1514:ASP:HB2	1.71	0.55
1:D:2303:ASP:N	1:D:2303:ASP:OD1	2.39	0.55
1:E:540:ASN:HD21	1:E:544:ILE:HG13	1.71	0.55
1:E:1445:VAL:HG23	1:E:1448:ALA:HB2	1.87	0.55
1:E:1734:SER:HA	1:E:1741:LEU:HD11	1.89	0.55
1:F:1496:SER:HB3	1:F:1578:ASP:HB3	1.89	0.55
1:F:2743:ALA:HB3	1:F:2939:ALA:HB3	1.88	0.55
1:A:2810:GLY:HA2	1:A:2896:THR:HA	1.89	0.55
1:B:238:SER:OG	1:B:249:THR:OG1	2.15	0.55
1:B:2478:ARG:NH1	1:B:2482:GLU:OE1	2.39	0.55
1:C:33:ALA:O	1:C:37:ARG:N	2.35	0.55
1:D:551:PRO:HG3	1:D:560:VAL:HG21	1.89	0.55
1:E:475:LEU:O	1:E:479:LEU:N	2.37	0.55
1:E:2810:GLY:HA2	1:E:2896:THR:HA	1.89	0.55
1:F:958:TRP:CD1	1:F:958:TRP:N	2.73	0.55
1:A:37:ARG:O	1:A:41:GLY:N	2.38	0.55
1:A:975:GLU:CG	1:A:976:TRP:N	2.70	0.55
1:C:540:ASN:HD21	1:C:544:ILE:HG13	1.71	0.55
1:C:551:PRO:HG3	1:C:560:VAL:HG21	1.89	0.55
1:C:2704:ALA:O	1:C:2705:LYS:HD3	2.07	0.55
1:E:490:LEU:HD23	1:E:523:SER:HB2	1.87	0.55
1:E:2303:ASP:N	1:E:2303:ASP:OD1	2.39	0.55
1:E:2704:ALA:O	1:E:2705:LYS:HD3	2.07	0.55
1:F:42:GLU:H	1:F:42:GLU:CD	2.14	0.55
1:F:176:VAL:O	1:F:180:ALA:N	2.36	0.55
1:F:975:GLU:CG	1:F:976:TRP:N	2.70	0.55
1:F:2704:ALA:O	1:F:2705:LYS:HD3	2.07	0.55
1:F:2957:PRO:HD3	1:F:2980:PRO:HB3	1.88	0.55
1:A:177:GLU:HB3	1:A:317:LEU:HD13	1.87	0.55
1:B:975:GLU:CG	1:B:976:TRP:N	2.70	0.55
1:B:1420:THR:OG1	1:B:1485:HIS:NE2	2.38	0.55
1:B:3073:MET:HE2	1:B:3089:LEU:HD11	1.88	0.55
1:C:1618:LEU:HG	1:C:1619:VAL:HG23	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:177:GLU:HB3	1:E:317:LEU:HD13	1.87	0.55
1:A:2478:ARG:NH1	1:A:2482:GLU:OE1	2.39	0.55
1:B:1012:GLY:C	1:B:1013:THR:HG22	2.32	0.55
1:B:2704:ALA:O	1:B:2705:LYS:HD3	2.07	0.55
1:C:490:LEU:HD23	1:C:523:SER:HB2	1.87	0.55
1:D:490:LEU:HD23	1:D:523:SER:HB2	1.87	0.55
1:D:737:TYR:HE1	1:D:862:VAL:HA	1.72	0.55
1:D:1724:TYR:OH	1:E:267:GLU:OE2	2.07	0.55
1:E:2458:ALA:HA	1:E:2824:ARG:HD2	1.89	0.55
1:F:1038:ALA:CA	1:F:1126:ILE:HA	2.37	0.55
1:F:2881:VAL:HG13	1:F:2885:ASP:HB2	1.88	0.55
1:B:2743:ALA:HB3	1:B:2939:ALA:HB3	1.88	0.55
1:B:2961:LEU:HD23	1:B:2978:ARG:HB3	1.87	0.55
1:C:975:GLU:CG	1:C:976:TRP:N	2.70	0.55
1:C:1012:GLY:C	1:C:1013:THR:HG22	2.32	0.55
1:C:1690:GLU:O	1:C:1694:GLY:N	2.40	0.55
1:E:737:TYR:HE1	1:E:862:VAL:HA	1.72	0.55
1:E:975:GLU:CG	1:E:976:TRP:N	2.70	0.55
1:E:1357:ILE:HG13	1:E:1710:THR:HG21	1.89	0.55
1:A:490:LEU:HD23	1:A:523:SER:HB2	1.87	0.55
1:A:580:ARG:HH11	1:A:614:GLY:HA3	1.72	0.55
1:A:1357:ILE:HG13	1:A:1710:THR:HG21	1.89	0.55
1:A:1690:GLU:O	1:A:1694:GLY:N	2.40	0.55
1:A:1734:SER:HA	1:A:1741:LEU:HD11	1.89	0.55
1:A:2458:ALA:HA	1:A:2824:ARG:HD2	1.89	0.55
1:B:2458:ALA:HA	1:B:2824:ARG:HD2	1.89	0.55
1:C:931:VAL:HG13	1:C:933:VAL:CG2	2.37	0.55
1:E:1012:GLY:C	1:E:1013:THR:HG22	2.32	0.55
1:E:1253:ARG:HG3	1:E:1253:ARG:NH1	2.18	0.55
1:B:2881:VAL:HG13	1:B:2885:ASP:HB2	1.88	0.55
1:C:2810:GLY:HA2	1:C:2896:THR:HA	1.88	0.55
1:D:1690:GLU:O	1:D:1694:GLY:N	2.40	0.54
1:D:2810:GLY:HA2	1:D:2896:THR:HA	1.89	0.54
1:E:2845:PHE:CD1	1:B:2731:GLY:HA2	2.39	0.54
1:F:540:ASN:HD21	1:F:544:ILE:HG13	1.71	0.54
1:F:1020:THR:O	1:F:1035:VAL:N	2.40	0.54
1:F:1357:ILE:HG13	1:F:1710:THR:HG21	1.89	0.54
1:A:1010:LEU:O	1:A:1017:ILE:N	2.29	0.54
1:A:1618:LEU:HG	1:A:1619:VAL:HG23	1.88	0.54
1:A:3073:MET:HE2	1:A:3089:LEU:HD11	1.88	0.54
1:B:737:TYR:HE1	1:B:862:VAL:HA	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1690:GLU:O	1:B:1694:GLY:N	2.40	0.54
1:D:668:THR:OG1	1:D:698:ILE:HD11	2.08	0.54
1:D:931:VAL:HG13	1:D:933:VAL:CG1	2.37	0.54
1:D:2417:SER:O	1:D:2421:ASP:N	2.40	0.54
1:D:2845:PHE:CD1	1:C:2731:GLY:HA2	2.39	0.54
1:E:2337:ILE:HG23	1:E:2369:MET:HE2	1.89	0.54
1:E:3073:MET:HE2	1:E:3089:LEU:HD11	1.89	0.54
1:F:3073:MET:HE2	1:F:3089:LEU:HD11	1.88	0.54
1:A:2704:ALA:O	1:A:2705:LYS:HD3	2.07	0.54
1:B:2957:PRO:HD3	1:B:2980:PRO:HB3	1.88	0.54
1:D:1618:LEU:HG	1:D:1619:VAL:HG23	1.88	0.54
1:E:1690:GLU:O	1:E:1694:GLY:N	2.40	0.54
1:F:1580:PRO:O	1:F:1583:SER:OG	2.22	0.54
1:F:1690:GLU:O	1:F:1694:GLY:N	2.40	0.54
1:F:2303:ASP:OD1	1:F:2303:ASP:N	2.39	0.54
1:F:2458:ALA:HA	1:F:2824:ARG:HD2	1.89	0.54
1:A:551:PRO:HG3	1:A:560:VAL:HG21	1.89	0.54
1:C:3073:MET:HE2	1:C:3089:LEU:HD11	1.88	0.54
1:E:42:GLU:H	1:E:42:GLU:CD	2.14	0.54
1:E:580:ARG:HH11	1:E:614:GLY:HA3	1.73	0.54
1:E:668:THR:OG1	1:E:698:ILE:HD11	2.08	0.54
1:F:475:LEU:O	1:F:479:LEU:N	2.37	0.54
1:F:931:VAL:HG13	1:F:933:VAL:CG1	2.37	0.54
1:F:1042:MET:C	1:F:1044:ALA:N	2.62	0.54
1:C:580:ARG:HH11	1:C:614:GLY:HA3	1.73	0.54
1:C:763:SER:O	1:C:766:ASP:N	2.41	0.54
1:C:2337:ILE:HG23	1:C:2369:MET:HE2	1.90	0.54
1:C:2458:ALA:HA	1:C:2824:ARG:HD2	1.89	0.54
1:D:763:SER:O	1:D:766:ASP:N	2.41	0.54
1:D:1420:THR:OG1	1:D:1485:HIS:NE2	2.38	0.54
1:F:1618:LEU:HG	1:F:1619:VAL:HG23	1.88	0.54
1:F:1734:SER:HA	1:F:1741:LEU:HD11	1.89	0.54
1:A:2337:ILE:HG23	1:A:2369:MET:HE2	1.90	0.54
1:B:551:PRO:HG3	1:B:560:VAL:HG21	1.89	0.54
1:D:2743:ALA:HB3	1:D:2939:ALA:HB3	1.88	0.54
1:E:551:PRO:HG3	1:E:560:VAL:HG21	1.89	0.54
1:E:2417:SER:O	1:E:2421:ASP:N	2.40	0.54
1:B:273:ARG:HD2	1:B:282:VAL:HG12	1.90	0.54
1:B:1226:ARG:HB3	1:B:1282:THR:HG21	1.90	0.54
1:B:2551:PRO:O	1:B:2617:LEU:HB2	2.08	0.54
1:B:3018:LEU:O	1:B:3022:GLU:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:716:ALA:HA	1:C:719:VAL:HG23	1.90	0.54
1:C:1151:GLU:HB2	1:C:1179:ALA:HB3	1.90	0.54
1:D:580:ARG:HH11	1:D:614:GLY:HA3	1.72	0.54
1:D:624:TYR:HA	1:D:629:TRP:CD1	2.43	0.54
1:D:2731:GLY:HA2	1:C:2845:PHE:CD1	2.39	0.54
1:E:368:ILE:HG21	1:E:373:ILE:HG13	1.90	0.54
1:F:551:PRO:HG3	1:F:560:VAL:HG21	1.89	0.54
1:F:668:THR:OG1	1:F:698:ILE:HD11	2.08	0.54
1:F:737:TYR:HE1	1:F:862:VAL:HA	1.72	0.54
1:F:1037:ASP:HB3	1:F:1042:MET:HG3	1.89	0.54
1:A:737:TYR:HE1	1:A:862:VAL:HA	1.72	0.54
1:A:763:SER:O	1:A:766:ASP:N	2.41	0.54
1:A:2551:PRO:O	1:A:2617:LEU:HB2	2.08	0.54
1:B:931:VAL:HG13	1:B:933:VAL:CG2	2.37	0.54
1:B:2768:ASP:OD2	1:B:2936:GLY:N	2.41	0.54
1:B:2860:ALA:HB1	1:B:3005:LEU:HD13	1.90	0.54
1:C:273:ARG:HD2	1:C:282:VAL:HG12	1.90	0.54
1:C:737:TYR:HE1	1:C:862:VAL:HA	1.72	0.54
1:C:1734:SER:HA	1:C:1741:LEU:HD11	1.89	0.54
1:C:2631:PRO:HG3	1:C:2649:LEU:HD13	1.90	0.54
1:D:716:ALA:HA	1:D:719:VAL:HG23	1.90	0.54
1:D:1734:SER:HA	1:D:1741:LEU:HD11	1.89	0.54
1:D:2551:PRO:O	1:D:2617:LEU:HB2	2.08	0.54
1:E:2551:PRO:O	1:E:2617:LEU:HB2	2.08	0.54
1:F:2337:ILE:HG23	1:F:2369:MET:HE2	1.90	0.54
1:F:2731:GLY:HA2	1:A:2845:PHE:CD1	2.38	0.54
1:F:2860:ALA:HB1	1:F:3005:LEU:HD13	1.90	0.54
1:A:668:THR:OG1	1:A:698:ILE:HD11	2.08	0.54
1:B:2337:ILE:HG23	1:B:2369:MET:HE2	1.90	0.54
1:C:1496:SER:HB3	1:C:1578:ASP:HB3	1.89	0.54
1:E:33:ALA:O	1:E:37:ARG:N	2.35	0.54
1:E:33:ALA:O	1:E:37:ARG:HG2	2.08	0.54
1:E:1151:GLU:HB2	1:E:1179:ALA:HB3	1.90	0.54
1:F:526:ILE:HD12	1:F:549:PHE:HB3	1.90	0.54
1:F:580:ARG:HH11	1:F:614:GLY:HA3	1.73	0.54
1:F:792:ALA:HA	1:F:799:PHE:CE2	2.43	0.54
1:F:1010:LEU:O	1:F:1017:ILE:N	2.30	0.54
1:F:1089:ALA:O	1:F:1091:LEU:N	2.42	0.54
1:F:3018:LEU:O	1:F:3022:GLU:HB2	2.08	0.54
1:A:624:TYR:HA	1:A:629:TRP:CD1	2.43	0.54
1:A:2768:ASP:OD2	1:A:2936:GLY:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2860:ALA:HB1	1:A:3005:LEU:HD13	1.90	0.54
1:B:456:GLU:HG2	1:B:486:GLN:HE21	1.73	0.54
1:B:2810:GLY:HA2	1:B:2896:THR:HA	1.89	0.54
1:C:668:THR:OG1	1:C:698:ILE:HD11	2.08	0.54
1:C:2743:ALA:HB3	1:C:2939:ALA:HB3	1.89	0.54
1:D:1496:SER:HB3	1:D:1578:ASP:HB3	1.89	0.53
1:D:2911:ALA:HA	1:D:2914:MET:HE2	1.90	0.53
1:D:2927:GLN:HE22	1:D:2941:PHE:C	2.17	0.53
1:E:2768:ASP:OD2	1:E:2936:GLY:N	2.41	0.53
1:E:2860:ALA:HB1	1:E:3005:LEU:HD13	1.90	0.53
1:F:763:SER:O	1:F:766:ASP:N	2.41	0.53
1:F:2768:ASP:OD2	1:F:2936:GLY:N	2.41	0.53
1:A:368:ILE:HG21	1:A:373:ILE:HG13	1.90	0.53
1:A:1226:ARG:HB3	1:A:1282:THR:HG21	1.90	0.53
1:B:526:ILE:HD12	1:B:549:PHE:HB3	1.90	0.53
1:B:668:THR:OG1	1:B:698:ILE:HD11	2.08	0.53
1:C:2551:PRO:O	1:C:2617:LEU:HB2	2.08	0.53
1:C:2768:ASP:OD2	1:C:2936:GLY:N	2.41	0.53
1:C:2860:ALA:HB1	1:C:3005:LEU:HD13	1.90	0.53
1:D:1089:ALA:O	1:D:1091:LEU:N	2.42	0.53
1:D:2860:ALA:HB1	1:D:3005:LEU:HD13	1.90	0.53
1:E:624:TYR:HA	1:E:629:TRP:CD1	2.43	0.53
1:E:1323:GLU:N	1:E:1343:LEU:O	2.41	0.53
1:E:2554:ALA:HB1	1:E:2614:LYS:HZ2	1.73	0.53
1:F:2810:GLY:HA2	1:F:2896:THR:HA	1.89	0.53
1:A:1174:VAL:HB	1:A:1188:LEU:HB3	1.91	0.53
1:A:2492:VAL:HG21	1:A:2527:VAL:HG22	1.90	0.53
1:B:745:THR:OG1	1:B:834:GLU:O	2.19	0.53
1:C:624:TYR:HA	1:C:629:TRP:CD1	2.43	0.53
1:C:1488:VAL:HG12	1:C:1490:ARG:HH11	1.73	0.53
1:C:2492:VAL:HG21	1:C:2527:VAL:HG22	1.90	0.53
1:F:1385:ARG:HD2	1:F:2407:GLU:OE1	2.08	0.53
1:A:716:ALA:HA	1:A:719:VAL:HG23	1.90	0.53
1:B:580:ARG:HH11	1:B:614:GLY:HA3	1.72	0.53
1:B:745:THR:HG23	1:B:834:GLU:HA	1.90	0.53
1:B:1151:GLU:HB2	1:B:1179:ALA:HB3	1.90	0.53
1:B:1618:LEU:HG	1:B:1619:VAL:HG23	1.88	0.53
1:B:2492:VAL:HG21	1:B:2527:VAL:HG22	1.90	0.53
1:D:1425:VAL:HG13	1:D:1474:LEU:HD13	1.91	0.53
1:E:1226:ARG:HB3	1:E:1282:THR:HG21	1.90	0.53
1:E:1420:THR:OG1	1:E:1485:HIS:NE2	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1580:PRO:O	1:E:1583:SER:OG	2.22	0.53
1:F:1036:ASP:C	1:F:1038:ALA:HB3	2.32	0.53
1:A:745:THR:HG23	1:A:834:GLU:HA	1.90	0.53
1:A:1148:GLU:O	1:A:1150:ALA:N	2.42	0.53
1:B:1734:SER:HA	1:B:1741:LEU:HD11	1.89	0.53
1:B:2103:TRP:CG	1:B:2919:GLY:O	2.62	0.53
1:B:2303:ASP:N	1:B:2303:ASP:OD1	2.39	0.53
1:C:368:ILE:HG21	1:C:373:ILE:HG13	1.90	0.53
1:C:1089:ALA:O	1:C:1091:LEU:N	2.42	0.53
1:C:1425:VAL:HG13	1:C:1474:LEU:HD13	1.91	0.53
1:D:745:THR:HG23	1:D:834:GLU:HA	1.90	0.53
1:D:2103:TRP:CG	1:D:2919:GLY:O	2.62	0.53
1:D:3018:LEU:O	1:D:3022:GLU:HB2	2.08	0.53
1:E:526:ILE:HD12	1:E:549:PHE:HB3	1.90	0.53
1:E:763:SER:O	1:E:766:ASP:N	2.41	0.53
1:E:2492:VAL:HG21	1:E:2527:VAL:HG22	1.90	0.53
1:E:3018:LEU:O	1:E:3022:GLU:HB2	2.08	0.53
1:F:273:ARG:HD2	1:F:282:VAL:HG12	1.90	0.53
1:F:624:TYR:HA	1:F:629:TRP:CD1	2.43	0.53
1:F:1151:GLU:HB2	1:F:1179:ALA:HB3	1.90	0.53
1:F:2103:TRP:CG	1:F:2919:GLY:O	2.62	0.53
1:A:71:GLU:HG2	1:A:142:ARG:NH2	2.24	0.53
1:B:624:TYR:HA	1:B:629:TRP:CD1	2.43	0.53
1:B:763:SER:O	1:B:766:ASP:N	2.41	0.53
1:B:1357:ILE:HG13	1:B:1710:THR:HG21	1.89	0.53
1:C:1530:LEU:HD21	1:C:1554:LEU:HD22	1.91	0.53
1:D:1357:ILE:HG13	1:D:1710:THR:HG21	1.89	0.53
1:D:2418:GLY:O	1:D:2422:GLU:N	2.40	0.53
1:D:2583:PHE:HD1	1:C:2614:LYS:HZ1	1.51	0.53
1:E:931:VAL:HG13	1:E:933:VAL:CG1	2.37	0.53
1:E:2631:PRO:HG3	1:E:2649:LEU:HD13	1.90	0.53
1:E:2911:ALA:HA	1:E:2914:MET:HE2	1.90	0.53
1:F:1174:VAL:HB	1:F:1188:LEU:HB3	1.91	0.53
1:A:588:GLU:HB3	1:A:593:LEU:HD11	1.91	0.53
1:A:1323:GLU:N	1:A:1343:LEU:O	2.42	0.53
1:B:1010:LEU:O	1:B:1017:ILE:N	2.29	0.53
1:B:2631:PRO:HG3	1:B:2649:LEU:HD13	1.90	0.53
1:C:2087:GLN:HA	1:C:2090:GLU:CG	2.39	0.53
1:D:1530:LEU:HD21	1:D:1554:LEU:HD22	1.91	0.53
1:D:2337:ILE:HG23	1:D:2369:MET:HE2	1.90	0.53
1:D:2753:LYS:HZ2	1:C:2748:GLU:HG2	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:745:THR:HG23	1:E:834:GLU:HA	1.90	0.53
1:E:1174:VAL:HB	1:E:1188:LEU:HB3	1.91	0.53
1:E:1425:VAL:HG13	1:E:1474:LEU:HD13	1.91	0.53
1:E:2927:GLN:HE22	1:E:2941:PHE:C	2.17	0.53
1:F:1012:GLY:C	1:F:1013:THR:HG22	2.32	0.53
1:F:2087:GLN:HA	1:F:2090:GLU:CG	2.39	0.53
1:A:273:ARG:HD2	1:A:282:VAL:HG12	1.90	0.53
1:A:1089:ALA:O	1:A:1091:LEU:N	2.42	0.53
1:A:2911:ALA:HA	1:A:2914:MET:HE2	1.91	0.53
1:C:71:GLU:HG2	1:C:142:ARG:NH2	2.24	0.53
1:D:1012:GLY:C	1:D:1013:THR:HG22	2.32	0.53
1:D:2693:GLN:O	1:D:2697:HIS:ND1	2.33	0.53
1:E:273:ARG:HD2	1:E:282:VAL:HG12	1.90	0.53
1:E:588:GLU:HB3	1:E:593:LEU:HD11	1.91	0.53
1:E:2103:TRP:CG	1:E:2919:GLY:O	2.62	0.53
1:E:2215:THR:HG22	1:E:2216:GLU:HG3	1.91	0.53
1:F:716:ALA:HA	1:F:719:VAL:HG23	1.90	0.53
1:F:958:TRP:H	1:F:958:TRP:HD1	1.56	0.53
1:F:1020:THR:HB	1:F:1035:VAL:HG22	1.90	0.53
1:F:2492:VAL:HG21	1:F:2527:VAL:HG22	1.90	0.53
1:A:1425:VAL:HG13	1:A:1474:LEU:HD13	1.91	0.53
1:A:1634:ARG:HD2	1:A:1638:PRO:HA	1.91	0.53
1:A:2087:GLN:HA	1:A:2090:GLU:CG	2.39	0.53
1:A:2089:PHE:HA	1:A:2188:ARG:HH11	1.74	0.53
1:D:526:ILE:HD12	1:D:549:PHE:HB3	1.90	0.53
1:D:2087:GLN:HA	1:D:2090:GLU:CG	2.39	0.53
1:F:745:THR:HG23	1:F:834:GLU:HA	1.90	0.53
1:F:1394:HIS:CE1	1:C:2324:LYS:HZ2	2.25	0.53
1:F:2551:PRO:O	1:F:2617:LEU:HB2	2.08	0.53
1:A:456:GLU:HG2	1:A:486:GLN:HE21	1.73	0.53
1:A:2103:TRP:CG	1:A:2919:GLY:O	2.62	0.53
1:B:88:SER:HG	1:B:311:TRP:CD1	2.27	0.53
1:B:368:ILE:HG21	1:B:373:ILE:HG13	1.90	0.53
1:B:1148:GLU:O	1:B:1150:ALA:N	2.42	0.53
1:B:2417:SER:O	1:B:2421:ASP:N	2.40	0.53
1:C:456:GLU:HG2	1:C:486:GLN:HE21	1.73	0.53
1:C:1357:ILE:HG13	1:C:1710:THR:HG21	1.89	0.53
1:D:1226:ARG:HB3	1:D:1282:THR:HG21	1.90	0.53
1:E:1634:ARG:HD2	1:E:1638:PRO:HA	1.91	0.53
1:E:2087:GLN:HA	1:E:2090:GLU:CG	2.39	0.53
1:F:1042:MET:O	1:F:1045:VAL:N	2.34	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1385:ARG:CD	1:F:2407:GLU:OE2	2.56	0.53
1:F:2631:PRO:HG3	1:F:2649:LEU:HD13	1.90	0.53
1:A:1225:ARG:CG	1:A:1283:ASP:OD1	2.57	0.53
1:C:526:ILE:HD12	1:C:549:PHE:HB3	1.90	0.53
1:C:1010:LEU:O	1:C:1017:ILE:N	2.29	0.53
1:C:2927:GLN:HE22	1:C:2941:PHE:C	2.17	0.53
1:D:456:GLU:HG2	1:D:486:GLN:HE21	1.73	0.52
1:D:1151:GLU:HB2	1:D:1179:ALA:HB3	1.90	0.52
1:D:2492:VAL:HG21	1:D:2527:VAL:HG22	1.90	0.52
1:D:2631:PRO:HG3	1:D:2649:LEU:HD13	1.90	0.52
1:D:2768:ASP:OD2	1:D:2936:GLY:N	2.41	0.52
1:E:411:PRO:HD2	1:E:1025:VAL:HG11	1.91	0.52
1:E:456:GLU:HG2	1:E:486:GLN:HE21	1.73	0.52
1:E:1089:ALA:O	1:E:1091:LEU:N	2.42	0.52
1:F:2417:SER:O	1:F:2421:ASP:N	2.40	0.52
1:A:776:ASP:O	1:A:779:TRP:N	2.31	0.52
1:A:1538:ARG:NH1	1:A:1722:PRO:HB3	2.18	0.52
1:B:411:PRO:HD2	1:B:1025:VAL:HG11	1.91	0.52
1:B:716:ALA:HA	1:B:719:VAL:HG23	1.90	0.52
1:C:745:THR:HG23	1:C:834:GLU:HA	1.90	0.52
1:C:2911:ALA:HA	1:C:2914:MET:HE2	1.90	0.52
1:C:3018:LEU:O	1:C:3022:GLU:HB2	2.08	0.52
1:D:961:ARG:NH2	1:D:1196:GLY:O	2.42	0.52
1:D:1148:GLU:O	1:D:1150:ALA:N	2.42	0.52
1:D:1323:GLU:N	1:D:1343:LEU:O	2.41	0.52
1:D:2458:ALA:HA	1:D:2824:ARG:HD2	1.89	0.52
1:E:716:ALA:HA	1:E:719:VAL:HG23	1.90	0.52
1:F:208:VAL:HG12	1:F:248:ILE:HG12	1.92	0.52
1:F:368:ILE:HG21	1:F:373:ILE:HG13	1.90	0.52
1:F:1225:ARG:CG	1:F:1283:ASP:OD1	2.57	0.52
1:A:176:VAL:O	1:A:180:ALA:N	2.36	0.52
1:A:208:VAL:HG12	1:A:248:ILE:HG12	1.91	0.52
1:A:411:PRO:HD2	1:A:1025:VAL:HG11	1.91	0.52
1:A:931:VAL:HG13	1:A:933:VAL:CG1	2.37	0.52
1:A:2927:GLN:HE22	1:A:2941:PHE:C	2.17	0.52
1:C:33:ALA:O	1:C:37:ARG:HG2	2.08	0.52
1:C:1323:GLU:N	1:C:1343:LEU:O	2.41	0.52
1:D:1488:VAL:HG12	1:D:1490:ARG:HH11	1.73	0.52
1:D:2737:VAL:HG21	1:C:2715:PRO:HB2	1.92	0.52
1:D:2740:CYS:HB2	1:D:2998:GLY:HA2	1.92	0.52
1:E:1119:THR:O	1:E:1123:PHE:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2089:PHE:HA	1:E:2188:ARG:HH11	1.74	0.52
1:F:1148:GLU:O	1:F:1150:ALA:N	2.42	0.52
1:F:1394:HIS:CE1	1:C:2324:LYS:HZ3	2.27	0.52
1:A:1110:VAL:HG13	1:A:1172:VAL:HG11	1.92	0.52
1:A:1151:GLU:HB2	1:A:1179:ALA:HB3	1.90	0.52
1:B:1733:ASN:HD22	1:B:1736:ARG:HD2	1.74	0.52
1:B:2180:LYS:HZ1	1:B:2962:ASP:HB3	1.73	0.52
1:B:2808:ARG:HB2	1:B:2895:SER:O	2.10	0.52
1:C:144:GLY:O	1:C:148:THR:N	2.33	0.52
1:C:1225:ARG:CG	1:C:1283:ASP:OD1	2.57	0.52
1:C:1733:ASN:HD22	1:C:1736:ARG:HD2	1.74	0.52
1:D:411:PRO:HD2	1:D:1025:VAL:HG11	1.91	0.52
1:D:792:ALA:HA	1:D:799:PHE:CE2	2.43	0.52
1:D:1225:ARG:CG	1:D:1283:ASP:OD1	2.57	0.52
1:D:1634:ARG:HD2	1:D:1638:PRO:HA	1.91	0.52
1:D:2715:PRO:HB2	1:C:2737:VAL:HG21	1.92	0.52
1:E:1093:PRO:HB3	1:E:1277:HIS:HE1	1.75	0.52
1:E:2962:ASP:OD1	1:E:2962:ASP:N	2.34	0.52
1:F:33:ALA:O	1:F:37:ARG:HG2	2.09	0.52
1:F:71:GLU:HG2	1:F:142:ARG:NH2	2.24	0.52
1:F:958:TRP:NE1	1:F:961:ARG:HB2	2.25	0.52
1:F:1037:ASP:CB	1:F:1042:MET:H	2.23	0.52
1:F:1634:ARG:HD2	1:F:1638:PRO:HA	1.91	0.52
1:F:2418:GLY:O	1:F:2422:GLU:N	2.40	0.52
1:F:2737:VAL:HG21	1:A:2715:PRO:HB2	1.91	0.52
1:A:33:ALA:O	1:A:37:ARG:HG2	2.08	0.52
1:A:1012:GLY:C	1:A:1013:THR:HG22	2.32	0.52
1:A:1580:PRO:O	1:A:1583:SER:OG	2.22	0.52
1:A:2215:THR:HG22	1:A:2216:GLU:HG3	1.91	0.52
1:B:33:ALA:O	1:B:37:ARG:HG2	2.08	0.52
1:B:1225:ARG:CG	1:B:1283:ASP:OD1	2.57	0.52
1:B:1488:VAL:HG12	1:B:1490:ARG:HH11	1.74	0.52
1:C:1148:GLU:O	1:C:1150:ALA:N	2.42	0.52
1:E:208:VAL:HG12	1:E:248:ILE:HG12	1.92	0.52
1:E:1148:GLU:O	1:E:1150:ALA:N	2.42	0.52
1:F:456:GLU:HG2	1:F:486:GLN:HE21	1.73	0.52
1:F:1021:LEU:CD2	1:F:1034:GLU:CG	2.81	0.52
1:F:1420:THR:OG1	1:F:1485:HIS:NE2	2.39	0.52
1:A:526:ILE:HD12	1:A:549:PHE:HB3	1.90	0.52
1:A:542:VAL:HG11	1:A:964:VAL:HB	1.92	0.52
1:A:930:PRO:CG	1:A:930:PRO:O	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1733:ASN:HD22	1:A:1736:ARG:HD2	1.74	0.52
1:A:3018:LEU:O	1:A:3022:GLU:HB2	2.08	0.52
1:B:1174:VAL:HB	1:B:1188:LEU:HB3	1.91	0.52
1:B:1323:GLU:N	1:B:1343:LEU:O	2.42	0.52
1:C:400:TRP:CZ3	1:C:636:PRO:HB2	2.45	0.52
1:C:1634:ARG:HD2	1:C:1638:PRO:HA	1.91	0.52
1:C:2089:PHE:HA	1:C:2188:ARG:HH11	1.74	0.52
1:C:2103:TRP:CG	1:C:2919:GLY:O	2.62	0.52
1:E:71:GLU:HG2	1:E:142:ARG:NH2	2.24	0.52
1:E:106:ALA:O	1:E:112:PRO:HD2	2.10	0.52
1:E:208:VAL:HB	1:E:255:LEU:HD13	1.92	0.52
1:E:400:TRP:CZ3	1:E:636:PRO:HB2	2.45	0.52
1:E:542:VAL:HG11	1:E:964:VAL:HB	1.92	0.52
1:E:2418:GLY:O	1:E:2422:GLU:N	2.40	0.52
1:F:931:VAL:HG13	1:F:933:VAL:HG13	1.92	0.52
1:F:960:GLY:CA	1:F:1126:ILE:HD13	2.39	0.52
1:F:1110:VAL:HG13	1:F:1172:VAL:HG11	1.92	0.52
1:F:1733:ASN:HD22	1:F:1736:ARG:HD2	1.74	0.52
1:F:2552:ASP:OD1	1:F:2552:ASP:N	2.43	0.52
1:A:208:VAL:HB	1:A:255:LEU:HD13	1.92	0.52
1:A:400:TRP:CZ3	1:A:636:PRO:HB2	2.45	0.52
1:B:1089:ALA:O	1:B:1091:LEU:N	2.41	0.52
1:B:2698:GLY:HA3	1:B:2705:LYS:HG3	1.92	0.52
1:C:1226:ARG:HB3	1:C:1282:THR:HG21	1.90	0.52
1:C:2808:ARG:HB2	1:C:2895:SER:O	2.10	0.52
1:C:2962:ASP:OD1	1:C:2962:ASP:N	2.34	0.52
1:D:588:GLU:HB3	1:D:593:LEU:HD11	1.91	0.52
1:D:1093:PRO:HB3	1:D:1277:HIS:HE1	1.75	0.52
1:D:1622:PRO:HD3	1:D:1685:LEU:HD21	1.92	0.52
1:E:1110:VAL:HG13	1:E:1172:VAL:HG11	1.92	0.52
1:E:1287:VAL:O	1:E:1291:LYS:HG3	2.10	0.52
1:F:2715:PRO:HB2	1:A:2737:VAL:HG21	1.92	0.52
1:A:2740:CYS:HB2	1:A:2998:GLY:HA2	1.92	0.52
1:B:1530:LEU:HD21	1:B:1554:LEU:HD22	1.91	0.52
1:B:1695:LEU:HD23	1:C:257:ARG:NH1	2.23	0.52
1:B:2552:ASP:OD1	1:B:2552:ASP:N	2.43	0.52
1:B:2911:ALA:HA	1:B:2914:MET:HE2	1.90	0.52
1:C:588:GLU:HB3	1:C:593:LEU:HD11	1.91	0.52
1:D:2215:THR:HG22	1:D:2216:GLU:HG3	1.91	0.52
1:E:88:SER:HG	1:E:311:TRP:CD1	2.28	0.52
1:E:930:PRO:CG	1:E:930:PRO:O	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1225:ARG:CG	1:E:1283:ASP:OD1	2.57	0.52
1:E:1538:ARG:NH1	1:E:1722:PRO:HB3	2.18	0.52
1:F:33:ALA:O	1:F:37:ARG:N	2.35	0.52
1:F:206:PRO:HG2	1:F:294:VAL:HA	1.92	0.52
1:F:400:TRP:CZ3	1:F:636:PRO:HB2	2.45	0.52
1:F:959:ALA:HB1	1:F:1126:ILE:C	2.35	0.52
1:F:2698:GLY:HA3	1:F:2705:LYS:HG3	1.92	0.52
1:A:577:GLU:OE2	2:A:4000:FMN:O3'	2.28	0.52
1:A:1164:THR:HA	1:A:1204:THR:O	2.10	0.52
1:A:2631:PRO:HG3	1:A:2649:LEU:HD13	1.90	0.52
1:B:206:PRO:HG2	1:B:294:VAL:HA	1.92	0.52
1:B:208:VAL:HG12	1:B:248:ILE:HG12	1.92	0.52
1:B:400:TRP:CZ3	1:B:636:PRO:HB2	2.45	0.52
1:B:588:GLU:HB3	1:B:593:LEU:HD11	1.91	0.52
1:B:961:ARG:NH2	1:B:1196:GLY:O	2.42	0.52
1:B:1119:THR:O	1:B:1123:PHE:HB2	2.10	0.52
1:B:1287:VAL:O	1:B:1291:LYS:HG3	2.10	0.52
1:B:2089:PHE:HA	1:B:2188:ARG:HH11	1.74	0.52
1:C:411:PRO:HD2	1:C:1025:VAL:HG11	1.91	0.52
1:C:1174:VAL:HB	1:C:1188:LEU:HB3	1.91	0.52
1:D:931:VAL:HG13	1:D:933:VAL:HG13	1.92	0.52
1:D:1110:VAL:HG13	1:D:1172:VAL:HG11	1.92	0.52
1:E:961:ARG:NH2	1:E:1196:GLY:O	2.42	0.52
1:F:411:PRO:HD2	1:F:1025:VAL:HG11	1.91	0.52
1:F:588:GLU:HB3	1:F:593:LEU:HD11	1.91	0.52
1:F:1394:HIS:CE1	1:C:2324:LYS:CE	2.93	0.52
1:F:2180:LYS:HZ1	1:F:2962:ASP:HB3	1.75	0.52
1:A:1622:PRO:HD3	1:A:1685:LEU:HD21	1.92	0.52
1:B:2215:THR:HG22	1:B:2216:GLU:HG3	1.91	0.52
1:C:88:SER:HG	1:C:311:TRP:CD1	2.27	0.52
1:C:1622:PRO:HD3	1:C:1685:LEU:HD21	1.92	0.52
1:D:2089:PHE:HA	1:D:2188:ARG:HH11	1.74	0.52
1:D:3000:GLY:HA3	1:C:2720:ALA:HB1	1.92	0.52
1:E:931:VAL:HG13	1:E:933:VAL:HG13	1.92	0.52
1:E:2715:PRO:HB2	1:B:2737:VAL:HG21	1.92	0.52
1:F:336:TRP:CE2	1:F:360:LEU:HD11	2.46	0.52
1:F:1323:GLU:N	1:F:1343:LEU:O	2.41	0.52
1:F:1622:PRO:HD3	1:F:1685:LEU:HD21	1.92	0.52
1:F:2927:GLN:HE22	1:F:2941:PHE:C	2.17	0.52
1:A:420:LYS:HB3	1:A:641:ASP:OD2	2.10	0.52
1:A:1530:LEU:HD21	1:A:1554:LEU:HD22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:405:PRO:HG3	1:B:625:LEU:HG	1.92	0.52
1:B:542:VAL:HG11	1:B:964:VAL:HB	1.92	0.52
1:B:1110:VAL:HG13	1:B:1172:VAL:HG11	1.92	0.52
1:C:106:ALA:O	1:C:112:PRO:HD2	2.10	0.52
1:C:961:ARG:NH2	1:C:1196:GLY:O	2.42	0.52
1:D:1598:GLU:HG2	1:D:1666:ILE:HD13	1.93	0.51
1:D:2720:ALA:HB1	1:C:3000:GLY:HA3	1.92	0.51
1:E:3074:LEU:HB2	1:B:2861:LEU:HD13	1.92	0.51
1:F:1634:ARG:HH11	1:F:1639:ALA:N	2.08	0.51
1:F:2089:PHE:HA	1:F:2188:ARG:HH11	1.74	0.51
1:A:508:GLN:HA	1:A:540:ASN:HB3	1.92	0.51
1:A:1287:VAL:O	1:A:1291:LYS:HG3	2.10	0.51
1:A:2554:ALA:HB1	1:A:2614:LYS:HZ2	1.73	0.51
1:A:2790:MET:HG2	1:A:2809:LEU:HD11	1.93	0.51
1:B:792:ALA:HA	1:B:799:PHE:CE2	2.43	0.51
1:B:1425:VAL:HG13	1:B:1474:LEU:HD13	1.91	0.51
1:B:2087:GLN:HA	1:B:2090:GLU:CG	2.39	0.51
1:C:1598:GLU:HG2	1:C:1666:ILE:HD13	1.93	0.51
1:D:1174:VAL:HB	1:D:1188:LEU:HB3	1.91	0.51
1:E:70:SER:HG	1:E:142:ARG:HH22	1.54	0.51
1:E:1733:ASN:HD22	1:E:1736:ARG:HD2	1.74	0.51
1:E:2401:ILE:HG23	1:E:2403:ILE:H	1.75	0.51
1:F:1226:ARG:HB3	1:F:1282:THR:HG21	1.90	0.51
1:F:2215:THR:HG22	1:F:2216:GLU:HG3	1.91	0.51
1:F:3000:GLY:HA3	1:A:2720:ALA:HB1	1.92	0.51
1:F:3074:LEU:HB2	1:A:2861:LEU:HD13	1.92	0.51
1:A:1695:LEU:HD23	1:B:257:ARG:NH1	2.23	0.51
1:B:1164:THR:HA	1:B:1204:THR:O	2.10	0.51
1:B:2236:LEU:HD23	1:B:2288:HIS:HB2	1.92	0.51
1:B:2554:ALA:HB1	1:B:2614:LYS:HZ2	1.74	0.51
1:B:2927:GLN:HE22	1:B:2941:PHE:C	2.17	0.51
1:C:208:VAL:HB	1:C:255:LEU:HD13	1.92	0.51
1:C:420:LYS:HB3	1:C:641:ASP:OD2	2.10	0.51
1:C:577:GLU:OE2	2:C:4000:FMN:O3'	2.28	0.51
1:D:746:TYR:HA	1:D:749:TRP:HD1	1.76	0.51
1:D:1119:THR:O	1:D:1123:PHE:HB2	2.10	0.51
1:D:2686:MET:HE1	1:D:2935:LYS:HZ2	1.76	0.51
1:E:1530:LEU:HD21	1:E:1554:LEU:HD22	1.91	0.51
1:E:1723:GLU:C	1:E:1725:SER:H	2.18	0.51
1:E:2236:LEU:HD23	1:E:2288:HIS:HB2	1.92	0.51
1:E:2690:THR:O	1:E:2693:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2740:CYS:HB2	1:E:2998:GLY:HA2	1.91	0.51
1:F:420:LYS:HB3	1:F:641:ASP:OD2	2.10	0.51
1:F:577:GLU:OE2	2:F:4000:FMN:O3'	2.28	0.51
1:F:1093:PRO:HB3	1:F:1277:HIS:HE1	1.75	0.51
1:A:206:PRO:HG2	1:A:294:VAL:HA	1.92	0.51
1:A:2401:ILE:HG23	1:A:2403:ILE:H	1.75	0.51
1:B:208:VAL:HB	1:B:255:LEU:HD13	1.92	0.51
1:B:420:LYS:HB3	1:B:641:ASP:OD2	2.10	0.51
1:B:2200:MET:HE1	1:B:2270:LEU:HD22	1.93	0.51
1:C:1287:VAL:O	1:C:1291:LYS:HG3	2.10	0.51
1:C:2215:THR:HG22	1:C:2216:GLU:HG3	1.91	0.51
1:C:2236:LEU:HD23	1:C:2288:HIS:HB2	1.92	0.51
1:D:1287:VAL:O	1:D:1291:LYS:HG3	2.10	0.51
1:D:1723:GLU:C	1:D:1725:SER:H	2.18	0.51
1:D:2501:MET:HE1	1:D:2516:GLU:OE2	2.11	0.51
1:D:2846:ALA:N	1:C:2731:GLY:O	2.44	0.51
1:E:508:GLN:HA	1:E:540:ASN:HB3	1.92	0.51
1:E:792:ALA:HA	1:E:799:PHE:CE2	2.43	0.51
1:E:2808:ARG:HB2	1:E:2895:SER:O	2.10	0.51
1:F:2200:MET:HE1	1:F:2270:LEU:HD22	1.93	0.51
1:F:2740:CYS:HB2	1:F:2998:GLY:HA2	1.92	0.51
1:F:2861:LEU:HD13	1:A:3074:LEU:HB2	1.92	0.51
1:A:931:VAL:HG13	1:A:933:VAL:HG13	1.91	0.51
1:A:961:ARG:NH2	1:A:1196:GLY:O	2.42	0.51
1:A:1317:GLY:H	1:A:1324:VAL:HG12	1.76	0.51
1:A:2690:THR:O	1:A:2693:GLN:HG2	2.11	0.51
1:B:106:ALA:O	1:B:112:PRO:HD2	2.10	0.51
1:B:336:TRP:CE2	1:B:360:LEU:HD11	2.45	0.51
1:C:1723:GLU:C	1:C:1725:SER:H	2.18	0.51
1:C:2552:ASP:OD1	1:C:2552:ASP:N	2.43	0.51
1:E:272:GLU:HB3	1:E:280:GLY:O	2.11	0.51
1:E:420:LYS:HB3	1:E:641:ASP:OD2	2.10	0.51
1:E:746:TYR:HA	1:E:749:TRP:HD1	1.76	0.51
1:E:1164:THR:HA	1:E:1204:THR:O	2.10	0.51
1:E:2614:LYS:HZ1	1:B:2583:PHE:HD1	1.51	0.51
1:E:2731:GLY:O	1:B:2846:ALA:N	2.44	0.51
1:E:2754:ILE:HA	1:E:2759:ALA:O	2.11	0.51
1:E:2790:MET:HG2	1:E:2809:LEU:HD11	1.93	0.51
1:F:1119:THR:O	1:F:1123:PHE:HB2	2.10	0.51
1:F:1287:VAL:O	1:F:1291:LYS:HG3	2.10	0.51
1:F:2690:THR:O	1:F:2693:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2911:ALA:HA	1:F:2914:MET:HE2	1.90	0.51
1:A:106:ALA:O	1:A:112:PRO:HD2	2.10	0.51
1:A:1119:THR:O	1:A:1123:PHE:HB2	2.10	0.51
1:A:1488:VAL:HG12	1:A:1490:ARG:HH11	1.73	0.51
1:B:1093:PRO:HB3	1:B:1277:HIS:HE1	1.74	0.51
1:D:542:VAL:HG11	1:D:964:VAL:HB	1.92	0.51
1:D:577:GLU:OE2	2:D:4000:FMN:O3'	2.28	0.51
1:D:1317:GLY:H	1:D:1324:VAL:HG12	1.76	0.51
1:E:577:GLU:OE2	2:E:4000:FMN:O3'	2.28	0.51
1:E:1488:VAL:HG12	1:E:1490:ARG:HH11	1.73	0.51
1:E:1622:PRO:HD3	1:E:1685:LEU:HD21	1.92	0.51
1:E:2720:ALA:HB1	1:B:3000:GLY:HA3	1.92	0.51
1:F:272:GLU:HB3	1:F:280:GLY:O	2.11	0.51
1:F:3080:ARG:HG3	1:F:3080:ARG:NH1	2.09	0.51
1:A:746:TYR:HA	1:A:749:TRP:HD1	1.76	0.51
1:B:71:GLU:HG2	1:B:142:ARG:NH2	2.24	0.51
1:C:746:TYR:HA	1:C:749:TRP:HD1	1.76	0.51
1:C:1093:PRO:HB3	1:C:1277:HIS:HE1	1.75	0.51
1:C:2180:LYS:HZ1	1:C:2962:ASP:HB3	1.75	0.51
1:C:2698:GLY:HA3	1:C:2705:LYS:HG3	1.92	0.51
1:D:1010:LEU:O	1:D:1017:ILE:N	2.29	0.51
1:E:780:ARG:HD2	1:E:816:LEU:HB3	1.93	0.51
1:E:2200:MET:HE1	1:E:2270:LEU:HD22	1.93	0.51
1:E:2501:MET:HE1	1:E:2516:GLU:OE2	2.11	0.51
1:F:1530:LEU:HD21	1:F:1554:LEU:HD22	1.91	0.51
1:A:336:TRP:CE2	1:A:360:LEU:HD11	2.46	0.51
1:A:2501:MET:HE1	1:A:2516:GLU:OE2	2.11	0.51
1:B:577:GLU:OE2	2:B:4000:FMN:O3'	2.28	0.51
1:B:1723:GLU:C	1:B:1725:SER:H	2.18	0.51
1:B:2740:CYS:HB2	1:B:2998:GLY:HA2	1.91	0.51
1:C:542:VAL:HG11	1:C:964:VAL:HB	1.92	0.51
1:C:780:ARG:HD2	1:C:816:LEU:HB3	1.93	0.51
1:C:1110:VAL:HG13	1:C:1172:VAL:HG11	1.92	0.51
1:C:1164:THR:HA	1:C:1204:THR:O	2.10	0.51
1:C:2690:THR:O	1:C:2693:GLN:HG2	2.11	0.51
1:C:2740:CYS:HB2	1:C:2998:GLY:HA2	1.91	0.51
1:D:508:GLN:HA	1:D:540:ASN:HB3	1.92	0.51
1:D:2861:LEU:HD13	1:C:3074:LEU:HB2	1.92	0.51
1:F:208:VAL:HB	1:F:255:LEU:HD13	1.92	0.51
1:F:405:PRO:HG3	1:F:625:LEU:HG	1.92	0.51
1:F:542:VAL:HG11	1:F:964:VAL:HB	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1425:VAL:HG13	1:F:1474:LEU:HD13	1.91	0.51
1:F:2731:GLY:O	1:A:2846:ALA:N	2.44	0.51
1:F:2808:ARG:HB2	1:F:2895:SER:O	2.10	0.51
1:A:1093:PRO:HB3	1:A:1277:HIS:HE1	1.75	0.51
1:B:931:VAL:HG13	1:B:933:VAL:HG23	1.92	0.51
1:B:1634:ARG:HD2	1:B:1638:PRO:HA	1.91	0.51
1:C:405:PRO:HG3	1:C:625:LEU:HG	1.93	0.51
1:C:792:ALA:HA	1:C:799:PHE:CE2	2.43	0.51
1:C:2200:MET:HE1	1:C:2270:LEU:HD22	1.93	0.51
1:C:2401:ILE:HG23	1:C:2403:ILE:H	1.76	0.51
1:D:780:ARG:HD2	1:D:816:LEU:HB3	1.93	0.51
1:D:2401:ILE:HG23	1:D:2403:ILE:H	1.76	0.51
1:D:2698:GLY:HA3	1:D:2705:LYS:HG3	1.92	0.51
1:E:2737:VAL:HG21	1:B:2715:PRO:HB2	1.91	0.51
1:F:1164:THR:HA	1:F:1204:THR:O	2.10	0.51
1:A:2417:SER:O	1:A:2421:ASP:N	2.40	0.51
1:A:2667:THR:HG21	1:A:3058:ARG:HH11	1.76	0.51
1:A:2808:ARG:HB2	1:A:2895:SER:O	2.10	0.51
1:D:2361:VAL:HG11	1:D:2398:LEU:HD23	1.93	0.51
1:D:2808:ARG:HB2	1:D:2895:SER:O	2.10	0.51
1:F:1317:GLY:H	1:F:1324:VAL:HG12	1.76	0.51
1:F:1488:VAL:HG12	1:F:1490:ARG:HH11	1.73	0.51
1:F:3080:ARG:CG	1:F:3080:ARG:NH1	2.72	0.51
1:A:2418:GLY:O	1:A:2422:GLU:N	2.40	0.51
1:B:1598:GLU:HG2	1:B:1666:ILE:HD13	1.93	0.51
1:B:2140:VAL:HG22	1:B:2165:ILE:HD12	1.93	0.51
1:B:2667:THR:HG21	1:B:3058:ARG:HH11	1.76	0.51
1:B:2754:ILE:HA	1:B:2759:ALA:O	2.11	0.51
1:C:1119:THR:O	1:C:1123:PHE:HB2	2.10	0.51
1:D:420:LYS:HB3	1:D:641:ASP:OD2	2.10	0.50
1:E:336:TRP:CE2	1:E:360:LEU:HD11	2.45	0.50
1:E:1317:GLY:H	1:E:1324:VAL:HG12	1.76	0.50
1:E:3000:GLY:HA3	1:B:2720:ALA:HB1	1.92	0.50
1:F:1457:GLU:OE2	1:F:1614:TYR:OH	2.29	0.50
1:F:2236:LEU:HD23	1:F:2288:HIS:HB2	1.92	0.50
1:F:2401:ILE:HG23	1:F:2403:ILE:H	1.76	0.50
1:F:2846:ALA:N	1:A:2731:GLY:O	2.44	0.50
1:A:1986:LEU:HA	1:A:1989:PHE:HD2	1.77	0.50
1:A:2552:ASP:OD1	1:A:2552:ASP:N	2.43	0.50
1:B:2790:MET:HG2	1:B:2809:LEU:HD11	1.93	0.50
1:B:2829:LEU:HD21	1:B:3014:PHE:HE2	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1317:GLY:H	1:C:1324:VAL:HG12	1.76	0.50
1:C:2957:PRO:HB3	1:C:2979:GLU:C	2.36	0.50
1:D:930:PRO:CG	1:D:930:PRO:O	2.57	0.50
1:D:1164:THR:HA	1:D:1204:THR:O	2.10	0.50
1:D:1986:LEU:HA	1:D:1989:PHE:HD2	1.76	0.50
1:D:2200:MET:HE1	1:D:2270:LEU:HD22	1.93	0.50
1:D:2245:VAL:HG13	1:D:2255:ARG:CZ	2.41	0.50
1:D:2754:ILE:HA	1:D:2759:ALA:O	2.11	0.50
1:E:2056:PHE:CZ	1:E:2180:LYS:HE2	2.47	0.50
1:E:2662:SER:HB2	1:E:2833:LEU:HD22	1.93	0.50
1:E:2667:THR:HG21	1:E:3058:ARG:HH11	1.76	0.50
1:E:2861:LEU:HD13	1:B:3074:LEU:HB2	1.92	0.50
1:F:106:ALA:O	1:F:112:PRO:HD2	2.10	0.50
1:F:746:TYR:HA	1:F:749:TRP:HD1	1.76	0.50
1:F:1037:ASP:OD1	1:F:1043:ARG:HG3	2.06	0.50
1:A:2140:VAL:HG22	1:A:2165:ILE:HD12	1.93	0.50
1:A:2698:GLY:HA3	1:A:2705:LYS:HG3	1.92	0.50
1:A:2957:PRO:HB3	1:A:2979:GLU:C	2.36	0.50
1:B:272:GLU:HB3	1:B:280:GLY:O	2.11	0.50
1:B:1331:ILE:HG13	1:B:1336:VAL:HG21	1.94	0.50
1:B:1590:VAL:HG11	1:B:1671:TRP:CD2	2.47	0.50
1:B:1634:ARG:HH11	1:B:1639:ALA:N	2.08	0.50
1:C:336:TRP:CE2	1:C:360:LEU:HD11	2.45	0.50
1:C:1986:LEU:HA	1:C:1989:PHE:HD2	1.77	0.50
1:C:2501:MET:HE1	1:C:2516:GLU:OE2	2.11	0.50
1:C:2790:MET:HG2	1:C:2809:LEU:HD11	1.93	0.50
1:D:1733:ASN:HD22	1:D:1736:ARG:HD2	1.74	0.50
1:D:2236:LEU:HD23	1:D:2288:HIS:HB2	1.92	0.50
1:E:1986:LEU:HA	1:E:1989:PHE:HD2	1.76	0.50
1:E:2698:GLY:HA3	1:E:2705:LYS:HG3	1.92	0.50
1:E:2957:PRO:HB3	1:E:2979:GLU:C	2.36	0.50
1:F:959:ALA:HB1	1:F:1127:GLU:H	1.72	0.50
1:F:1037:ASP:HA	1:F:1038:ALA:HB3	1.93	0.50
1:F:2245:VAL:HG13	1:F:2255:ARG:CZ	2.42	0.50
1:F:2614:LYS:HZ1	1:A:2583:PHE:HD1	1.52	0.50
1:F:2720:ALA:HB1	1:A:3000:GLY:HA3	1.92	0.50
1:F:2754:ILE:HA	1:F:2759:ALA:O	2.11	0.50
1:A:780:ARG:HD2	1:A:816:LEU:HB3	1.93	0.50
1:A:1598:GLU:HG2	1:A:1666:ILE:HD13	1.93	0.50
1:B:1380:ALA:HB1	1:B:1474:LEU:HD12	1.93	0.50
1:B:1622:PRO:HD3	1:B:1685:LEU:HD21	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2686:MET:HE1	1:B:2935:LYS:HZ2	1.76	0.50
1:C:208:VAL:HG12	1:C:248:ILE:HG12	1.91	0.50
1:D:2748:GLU:HG2	1:C:2753:LYS:HZ2	1.74	0.50
1:E:1634:ARG:HH11	1:E:1639:ALA:N	2.08	0.50
1:E:2140:VAL:HG22	1:E:2165:ILE:HD12	1.94	0.50
1:F:508:GLN:HA	1:F:540:ASN:HB3	1.93	0.50
1:F:2501:MET:HE1	1:F:2516:GLU:OE2	2.11	0.50
1:F:2662:SER:HB2	1:F:2833:LEU:HD22	1.93	0.50
1:F:2667:THR:HG21	1:F:3058:ARG:HH11	1.76	0.50
1:F:2790:MET:HG2	1:F:2809:LEU:HD11	1.93	0.50
1:A:1723:GLU:C	1:A:1725:SER:H	2.18	0.50
1:B:2401:ILE:HG23	1:B:2403:ILE:H	1.76	0.50
1:B:2662:SER:HB2	1:B:2833:LEU:HD22	1.94	0.50
1:C:508:GLN:HA	1:C:540:ASN:HB3	1.92	0.50
1:C:2361:VAL:HG11	1:C:2398:LEU:HD23	1.93	0.50
1:C:2754:ILE:HA	1:C:2759:ALA:O	2.11	0.50
1:D:1695:LEU:HD23	1:E:257:ARG:NH1	2.23	0.50
1:D:2690:THR:O	1:D:2693:GLN:HG2	2.11	0.50
1:D:2829:LEU:HD21	1:D:3014:PHE:HE2	1.77	0.50
1:D:2957:PRO:HB3	1:D:2979:GLU:C	2.36	0.50
1:E:1207:VAL:HG23	1:E:1207:VAL:O	2.12	0.50
1:E:1598:GLU:HG2	1:E:1666:ILE:HD13	1.93	0.50
1:F:2140:VAL:HG22	1:F:2165:ILE:HD12	1.94	0.50
1:A:257:ARG:NH1	1:C:1695:LEU:HD23	2.23	0.50
1:B:2261:LYS:HA	1:B:2265:TRP:HB2	1.93	0.50
1:B:2501:MET:HE1	1:B:2516:GLU:OE2	2.11	0.50
1:C:272:GLU:HB3	1:C:280:GLY:O	2.11	0.50
1:D:2552:ASP:OD1	1:D:2552:ASP:N	2.43	0.50
1:D:2731:GLY:O	1:C:2846:ALA:N	2.44	0.50
1:E:1380:ALA:HB1	1:E:1474:LEU:HD12	1.94	0.50
1:F:930:PRO:CG	1:F:930:PRO:O	2.57	0.50
1:F:1598:GLU:HG2	1:F:1666:ILE:HD13	1.93	0.50
1:A:272:GLU:HB3	1:A:280:GLY:O	2.11	0.50
1:A:1380:ALA:HB1	1:A:1474:LEU:HD12	1.94	0.50
1:A:2180:LYS:HZ1	1:A:2962:ASP:HB3	1.76	0.50
1:A:2754:ILE:HA	1:A:2759:ALA:O	2.11	0.50
1:B:2245:VAL:HG13	1:B:2255:ARG:CZ	2.41	0.50
1:B:2690:THR:O	1:B:2693:GLN:HG2	2.11	0.50
1:D:1010:LEU:CG	1:D:1017:ILE:HB	2.42	0.50
1:D:1590:VAL:HG11	1:D:1671:TRP:CD2	2.47	0.50
1:D:2554:ALA:HB2	1:C:2582:GLN:HB3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:176:VAL:O	1:E:180:ALA:N	2.36	0.50
1:E:206:PRO:HG2	1:E:294:VAL:HA	1.93	0.50
1:E:2180:LYS:HZ1	1:E:2962:ASP:HB3	1.77	0.50
1:F:207:MET:HA	1:F:249:THR:HG22	1.94	0.50
1:F:780:ARG:HD2	1:F:816:LEU:HB3	1.93	0.50
1:F:1380:ALA:HB1	1:F:1474:LEU:HD12	1.93	0.50
1:A:1331:ILE:HG13	1:A:1336:VAL:HG21	1.94	0.50
1:A:2557:LEU:HD22	1:A:2613:ARG:HB2	1.94	0.50
1:B:780:ARG:HD2	1:B:816:LEU:HB3	1.93	0.50
1:B:930:PRO:CG	1:B:930:PRO:O	2.57	0.50
1:B:940:ARG:CG	1:B:940:ARG:O	2.60	0.50
1:B:1317:GLY:H	1:B:1324:VAL:HG12	1.76	0.50
1:C:1380:ALA:HB1	1:C:1474:LEU:HD12	1.94	0.50
1:C:1590:VAL:HG11	1:C:1671:TRP:CD2	2.47	0.50
1:C:2140:VAL:HG22	1:C:2165:ILE:HD12	1.93	0.50
1:C:2662:SER:HB2	1:C:2833:LEU:HD22	1.93	0.50
1:C:3080:ARG:HG3	1:C:3080:ARG:NH1	2.09	0.50
1:E:2261:LYS:HA	1:E:2265:TRP:HB2	1.94	0.50
1:E:2582:GLN:HB3	1:B:2554:ALA:HB2	1.94	0.50
1:F:133:GLN:HG2	1:F:355:GLY:HA2	1.94	0.50
1:A:2236:LEU:HD23	1:A:2288:HIS:HB2	1.92	0.50
1:A:2361:VAL:HG11	1:A:2398:LEU:HD23	1.93	0.50
1:A:2623:ALA:HB2	1:A:2812:LEU:HD21	1.94	0.50
1:A:2811:PHE:HB3	1:A:2894:THR:HG22	1.94	0.50
1:D:1207:VAL:HG13	1:D:1207:VAL:O	2.12	0.50
1:D:1331:ILE:HG13	1:D:1336:VAL:HG21	1.94	0.50
1:D:2582:GLN:HB3	1:C:2554:ALA:HB2	1.94	0.50
1:E:2811:PHE:HB3	1:E:2894:THR:HG22	1.94	0.50
1:F:1119:THR:HA	1:F:1123:PHE:CD1	2.47	0.50
1:F:1723:GLU:C	1:F:1725:SER:H	2.18	0.50
1:F:2554:ALA:HB2	1:A:2582:GLN:HB3	1.94	0.50
1:A:1010:LEU:CG	1:A:1017:ILE:HB	2.42	0.50
1:A:1711:VAL:HA	1:A:1714:LEU:HG	1.94	0.50
1:B:1010:LEU:CG	1:B:1017:ILE:HB	2.42	0.50
1:B:1580:PRO:O	1:B:1583:SER:OG	2.22	0.50
1:B:1711:VAL:HA	1:B:1714:LEU:HG	1.94	0.50
1:B:2334:HIS:HB3	1:B:2391:LYS:HA	1.94	0.50
1:C:207:MET:HA	1:C:249:THR:HG22	1.94	0.50
1:C:931:VAL:HG13	1:C:933:VAL:HG23	1.92	0.50
1:C:2274:LEU:HD23	1:C:2277:ILE:HD12	1.94	0.50
1:D:1133:VAL:O	1:D:1193:ALA:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1380:ALA:HB1	1:D:1474:LEU:HD12	1.94	0.49
1:D:2667:THR:HG21	1:D:3058:ARG:HH11	1.76	0.49
1:D:3074:LEU:HB2	1:C:2861:LEU:HD13	1.92	0.49
1:E:405:PRO:HG3	1:E:625:LEU:HG	1.92	0.49
1:E:1331:ILE:HG13	1:E:1336:VAL:HG21	1.94	0.49
1:E:1711:VAL:HA	1:E:1714:LEU:HG	1.94	0.49
1:F:1385:ARG:HD2	1:F:2407:GLU:OE2	2.11	0.49
1:F:2334:HIS:HB3	1:F:2391:LYS:HA	1.94	0.49
1:B:133:GLN:HG2	1:B:355:GLY:HA2	1.94	0.49
1:B:2361:VAL:HG11	1:B:2398:LEU:HD23	1.93	0.49
1:C:206:PRO:HG2	1:C:294:VAL:HA	1.92	0.49
1:C:1207:VAL:HG23	1:C:1207:VAL:O	2.12	0.49
1:C:2245:VAL:HG13	1:C:2255:ARG:CZ	2.41	0.49
1:C:2667:THR:HG21	1:C:3058:ARG:HH11	1.76	0.49
1:C:2811:PHE:HB3	1:C:2894:THR:HG22	1.94	0.49
1:D:405:PRO:HG3	1:D:625:LEU:HG	1.92	0.49
1:D:2056:PHE:CZ	1:D:2180:LYS:HE2	2.47	0.49
1:D:2662:SER:HB2	1:D:2833:LEU:HD22	1.93	0.49
1:F:1010:LEU:CG	1:F:1017:ILE:HB	2.42	0.49
1:F:1590:VAL:HG11	1:F:1671:TRP:CD2	2.47	0.49
1:F:2056:PHE:CZ	1:F:2180:LYS:HE2	2.46	0.49
1:F:2361:VAL:HG11	1:F:2398:LEU:HD23	1.93	0.49
1:F:2583:PHE:HD1	1:A:2614:LYS:HZ1	1.51	0.49
1:F:2957:PRO:HB3	1:F:2979:GLU:C	2.36	0.49
1:F:2962:ASP:OD1	1:F:2962:ASP:N	2.34	0.49
1:A:2200:MET:HE1	1:A:2270:LEU:HD22	1.93	0.49
1:A:2245:VAL:HG13	1:A:2255:ARG:CZ	2.42	0.49
1:A:2334:HIS:HB3	1:A:2391:LYS:HA	1.94	0.49
1:B:207:MET:HA	1:B:249:THR:HG22	1.94	0.49
1:B:508:GLN:HA	1:B:540:ASN:HB3	1.92	0.49
1:B:746:TYR:HA	1:B:749:TRP:HD1	1.76	0.49
1:C:2137:GLU:O	1:C:2163:THR:N	2.30	0.49
1:D:1178:ASN:HB2	1:D:1185:LEU:HD11	1.94	0.49
1:E:1119:THR:HA	1:E:1123:PHE:CD1	2.47	0.49
1:E:2118:LEU:O	1:E:2122:ILE:CG1	2.60	0.49
1:E:2557:LEU:HD22	1:E:2613:ARG:HB2	1.94	0.49
1:F:1207:VAL:HG13	1:F:1207:VAL:O	2.12	0.49
1:F:2829:LEU:HD21	1:F:3014:PHE:HE2	1.76	0.49
1:A:405:PRO:HG3	1:A:625:LEU:HG	1.93	0.49
1:B:1119:THR:HA	1:B:1123:PHE:CD1	2.47	0.49
1:B:1986:LEU:HA	1:B:1989:PHE:HD2	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1331:ILE:HG13	1:C:1336:VAL:HG21	1.94	0.49
1:D:2811:PHE:HB3	1:D:2894:THR:HG22	1.94	0.49
1:E:1590:VAL:HG11	1:E:1671:TRP:CD2	2.47	0.49
1:E:2846:ALA:N	1:B:2731:GLY:O	2.44	0.49
1:F:1035:VAL:HG12	1:F:1042:MET:HG2	1.94	0.49
1:F:1362:MET:HG3	1:F:1430:VAL:HG21	1.95	0.49
1:F:1986:LEU:HA	1:F:1989:PHE:HD2	1.76	0.49
1:A:1207:VAL:HG23	1:A:1207:VAL:O	2.12	0.49
1:A:1590:VAL:HG11	1:A:1671:TRP:CD2	2.47	0.49
1:B:1291:LYS:HA	1:B:1344:ALA:HB3	1.95	0.49
1:B:2118:LEU:O	1:B:2122:ILE:CG1	2.60	0.49
1:B:2503:LYS:HE3	1:B:2505:GLU:OE2	2.13	0.49
1:C:1010:LEU:CG	1:C:1017:ILE:HB	2.42	0.49
1:C:1119:THR:HA	1:C:1123:PHE:CD1	2.48	0.49
1:D:940:ARG:CG	1:D:940:ARG:O	2.60	0.49
1:D:1119:THR:HA	1:D:1123:PHE:CD1	2.47	0.49
1:D:1362:MET:HG3	1:D:1430:VAL:HG21	1.95	0.49
1:D:1533:VAL:HG13	1:D:1582:HIS:HB2	1.95	0.49
1:D:2274:LEU:HD23	1:D:2277:ILE:HD12	1.94	0.49
1:D:2291:LEU:HD21	1:D:2332:LEU:HD22	1.95	0.49
1:F:961:ARG:NE	1:F:1196:GLY:CA	2.75	0.49
1:F:2261:LYS:HA	1:F:2265:TRP:HB2	1.93	0.49
1:A:133:GLN:HG2	1:A:355:GLY:HA2	1.94	0.49
1:A:2662:SER:HB2	1:A:2833:LEU:HD22	1.94	0.49
1:B:144:GLY:O	1:B:148:THR:N	2.34	0.49
1:B:1178:ASN:HB2	1:B:1185:LEU:HD11	1.94	0.49
1:B:1212:ALA:O	1:B:1342:ARG:NH2	2.45	0.49
1:B:2957:PRO:HB3	1:B:2979:GLU:C	2.37	0.49
1:C:930:PRO:CG	1:C:930:PRO:O	2.57	0.49
1:C:1362:MET:HG3	1:C:1430:VAL:HG21	1.95	0.49
1:C:2291:LEU:HD21	1:C:2332:LEU:HD22	1.95	0.49
1:C:2829:LEU:HD21	1:C:3014:PHE:HE2	1.76	0.49
1:D:2261:LYS:HA	1:D:2265:TRP:HB2	1.94	0.49
1:D:2790:MET:HG2	1:D:2809:LEU:HD11	1.93	0.49
1:E:1010:LEU:CG	1:E:1017:ILE:HB	2.42	0.49
1:E:2334:HIS:HB3	1:E:2391:LYS:HA	1.94	0.49
1:F:2274:LEU:HD23	1:F:2277:ILE:HD12	1.94	0.49
1:F:2503:LYS:HE3	1:F:2505:GLU:OE2	2.13	0.49
1:A:1362:MET:HG3	1:A:1430:VAL:HG21	1.95	0.49
1:A:1634:ARG:HH11	1:A:1639:ALA:N	2.08	0.49
1:C:176:VAL:O	1:C:180:ALA:N	2.36	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1637:VAL:HG21	1:C:1671:TRP:CD2	2.48	0.49
1:C:2056:PHE:CZ	1:C:2180:LYS:HE2	2.47	0.49
1:D:505:ARG:HA	1:D:508:GLN:HB2	1.94	0.49
1:D:1711:VAL:HA	1:D:1714:LEU:HG	1.94	0.49
1:D:3080:ARG:HG3	1:D:3080:ARG:NH1	2.09	0.49
1:E:1212:ALA:O	1:E:1342:ARG:NH2	2.45	0.49
1:E:2503:LYS:HE3	1:E:2505:GLU:OE2	2.13	0.49
1:F:1533:VAL:HG13	1:F:1582:HIS:HB2	1.95	0.49
1:F:2820:ILE:HD12	1:F:2822:LEU:HD21	1.95	0.49
1:A:790:ALA:HB3	1:A:826:LEU:HD21	1.95	0.49
1:A:1119:THR:HA	1:A:1123:PHE:CD1	2.47	0.49
1:C:505:ARG:HA	1:C:508:GLN:HB2	1.94	0.49
1:C:2118:LEU:O	1:C:2122:ILE:CG1	2.61	0.49
1:C:2820:ILE:HD12	1:C:2822:LEU:HD21	1.95	0.49
1:D:745:THR:OG1	1:D:834:GLU:O	2.19	0.49
1:D:2180:LYS:HZ1	1:D:2962:ASP:HB3	1.76	0.49
1:E:133:GLN:HG2	1:E:355:GLY:HA2	1.94	0.49
1:E:184:LEU:HB3	1:E:311:TRP:HE3	1.78	0.49
1:E:2623:ALA:HB2	1:E:2812:LEU:HD21	1.94	0.49
1:F:1637:VAL:HG21	1:F:1671:TRP:CD2	2.48	0.49
1:F:2811:PHE:HB3	1:F:2894:THR:HG22	1.94	0.49
1:A:940:ARG:CG	1:A:940:ARG:O	2.60	0.49
1:A:2261:LYS:HA	1:A:2265:TRP:HB2	1.94	0.49
1:B:2820:ILE:HD12	1:B:2822:LEU:HD21	1.95	0.49
1:C:1533:VAL:HG13	1:C:1582:HIS:HB2	1.95	0.49
1:C:2417:SER:O	1:C:2421:ASP:N	2.40	0.49
1:E:207:MET:HA	1:E:249:THR:HG22	1.94	0.49
1:E:1111:PHE:HE1	1:E:1129:LEU:HD11	1.78	0.49
1:E:2361:VAL:HG11	1:E:2398:LEU:HD23	1.93	0.49
1:F:790:ALA:HB3	1:F:826:LEU:HD21	1.95	0.49
1:F:1331:ILE:HG13	1:F:1336:VAL:HG21	1.94	0.49
1:B:790:ALA:HB3	1:B:826:LEU:HD21	1.95	0.49
1:B:2623:ALA:HB2	1:B:2812:LEU:HD21	1.94	0.49
1:D:2623:ALA:HB2	1:D:2812:LEU:HD21	1.94	0.49
1:E:2245:VAL:HG13	1:E:2255:ARG:CZ	2.42	0.49
1:F:671:THR:HB	1:F:682:ASN:CG	2.38	0.49
1:F:940:ARG:CG	1:F:940:ARG:O	2.60	0.49
1:F:1035:VAL:HG11	1:F:1042:MET:HG2	1.95	0.49
1:F:1212:ALA:O	1:F:1342:ARG:NH2	2.45	0.49
1:F:2557:LEU:HD22	1:F:2613:ARG:HB2	1.94	0.49
1:A:726:ILE:HG22	1:A:730:MET:HE3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1111:PHE:HE1	1:A:1129:LEU:HD11	1.78	0.49
1:A:2058:ASP:OD1	1:A:2058:ASP:N	2.46	0.49
1:B:1435:VAL:HG22	1:B:1703:ILE:HD12	1.95	0.49
1:B:2811:PHE:HB3	1:B:2894:THR:HG22	1.94	0.49
1:C:726:ILE:HG22	1:C:730:MET:HE3	1.95	0.49
1:C:1435:VAL:HG22	1:C:1703:ILE:HD12	1.95	0.49
1:C:1711:VAL:HA	1:C:1714:LEU:HG	1.94	0.49
1:C:2623:ALA:HB2	1:C:2812:LEU:HD21	1.94	0.49
1:D:2140:VAL:HG22	1:D:2165:ILE:HD12	1.93	0.48
1:D:2503:LYS:HE3	1:D:2505:GLU:OE2	2.13	0.48
1:D:2557:LEU:HD22	1:D:2613:ARG:HB2	1.94	0.48
1:E:144:GLY:O	1:E:148:THR:N	2.34	0.48
1:E:726:ILE:HG22	1:E:730:MET:HE3	1.95	0.48
1:E:1637:VAL:HG21	1:E:1671:TRP:CD2	2.48	0.48
1:E:2554:ALA:HB1	1:E:2614:LYS:HD2	1.95	0.48
1:F:2926:SER:HB3	1:F:2976:TRP:HH2	1.78	0.48
1:A:207:MET:HA	1:A:249:THR:HG22	1.94	0.48
1:A:2118:LEU:O	1:A:2122:ILE:CG1	2.60	0.48
1:A:2848:GLY:H	1:A:3001:HIS:CD2	2.31	0.48
1:B:1637:VAL:HG21	1:B:1671:TRP:CD2	2.48	0.48
1:C:361:THR:HG21	1:C:377:PRO:HG3	1.95	0.48
1:C:671:THR:HB	1:C:682:ASN:CG	2.38	0.48
1:C:2736:PRO:HG2	1:C:2746:SER:HA	1.96	0.48
1:C:2848:GLY:H	1:C:3001:HIS:CD2	2.31	0.48
1:D:444:ILE:HD12	1:D:655:ALA:HA	1.95	0.48
1:D:726:ILE:HG22	1:D:730:MET:HE3	1.95	0.48
1:D:1212:ALA:O	1:D:1342:ARG:NH2	2.45	0.48
1:D:1637:VAL:HG21	1:D:1671:TRP:CD2	2.48	0.48
1:D:2820:ILE:HD12	1:D:2822:LEU:HD21	1.95	0.48
1:E:671:THR:HB	1:E:682:ASN:CG	2.38	0.48
1:E:2088:ARG:O	1:E:2188:ARG:NH1	2.47	0.48
1:E:2094:HIS:O	1:E:2098:THR:HG22	2.14	0.48
1:E:2274:LEU:HD23	1:E:2277:ILE:HD12	1.94	0.48
1:E:2686:MET:HE1	1:E:2935:LYS:HZ2	1.77	0.48
1:F:726:ILE:HG22	1:F:730:MET:HE3	1.95	0.48
1:F:1651:THR:HB	1:F:1656:LYS:HD2	1.95	0.48
1:F:1711:VAL:HA	1:F:1714:LEU:HG	1.94	0.48
1:F:1996:PRO:O	1:F:2000:LEU:N	2.41	0.48
1:F:2167:THR:HB	1:F:2198:ALA:HB3	1.95	0.48
1:F:2845:PHE:CE1	1:A:2676:SER:HB2	2.49	0.48
1:A:88:SER:HG	1:A:311:TRP:CD1	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:868:ARG:HB3	1:A:872:ARG:NH1	2.28	0.48
1:A:1625:LEU:HD11	1:A:1660:LEU:HB3	1.96	0.48
1:A:2137:GLU:O	1:A:2163:THR:N	2.30	0.48
1:A:2503:LYS:HE3	1:A:2505:GLU:OE2	2.13	0.48
1:B:2274:LEU:HD23	1:B:2277:ILE:HD12	1.94	0.48
1:B:2554:ALA:HB1	1:B:2614:LYS:HD2	1.95	0.48
1:B:2848:GLY:H	1:B:3001:HIS:CD2	2.31	0.48
1:C:184:LEU:HB3	1:C:311:TRP:HE3	1.78	0.48
1:C:444:ILE:HD12	1:C:655:ALA:HA	1.95	0.48
1:D:671:THR:HB	1:D:682:ASN:CG	2.38	0.48
1:D:868:ARG:HB3	1:D:872:ARG:NH1	2.28	0.48
1:D:2170:ARG:HB2	1:D:2175:ARG:HG3	1.95	0.48
1:D:2736:PRO:HG2	1:D:2746:SER:HA	1.96	0.48
1:E:790:ALA:HB3	1:E:826:LEU:HD21	1.95	0.48
1:E:1362:MET:HG3	1:E:1430:VAL:HG21	1.95	0.48
1:E:1381:ASP:OD1	1:E:1391:SER:OG	2.22	0.48
1:E:2098:THR:O	1:E:2102:TRP:CG	2.67	0.48
1:E:2666:PRO:CB	1:E:2727:VAL:HA	2.44	0.48
1:E:2676:SER:HB2	1:B:2845:PHE:CE1	2.49	0.48
1:E:2829:LEU:HD21	1:E:3014:PHE:HE2	1.76	0.48
1:F:184:LEU:HB3	1:F:311:TRP:HE3	1.78	0.48
1:F:1111:PHE:HE1	1:F:1129:LEU:HD11	1.78	0.48
1:F:2118:LEU:O	1:F:2122:ILE:CG1	2.60	0.48
1:F:2582:GLN:HB3	1:A:2554:ALA:HB2	1.94	0.48
1:F:2623:ALA:HB2	1:F:2812:LEU:HD21	1.94	0.48
1:A:505:ARG:HA	1:A:508:GLN:HB2	1.94	0.48
1:A:671:THR:HB	1:A:682:ASN:CG	2.38	0.48
1:A:2554:ALA:HB1	1:A:2614:LYS:HD2	1.95	0.48
1:A:2829:LEU:HD21	1:A:3014:PHE:HE2	1.77	0.48
1:B:1533:VAL:HG13	1:B:1582:HIS:HB2	1.95	0.48
1:B:2056:PHE:CZ	1:B:2180:LYS:HE2	2.47	0.48
1:B:2167:THR:HB	1:B:2198:ALA:HB3	1.95	0.48
1:C:1212:ALA:O	1:C:1342:ARG:NH2	2.45	0.48
1:C:1625:LEU:HD11	1:C:1660:LEU:HB3	1.96	0.48
1:C:1651:THR:HB	1:C:1656:LYS:HD2	1.95	0.48
1:C:2261:LYS:HA	1:C:2265:TRP:HB2	1.94	0.48
1:C:3065:PRO:O	1:C:3069:GLN:N	2.42	0.48
1:D:1651:THR:HB	1:D:1656:LYS:HD2	1.95	0.48
1:D:2088:ARG:O	1:D:2188:ARG:NH1	2.47	0.48
1:D:2118:LEU:O	1:D:2122:ILE:CG1	2.60	0.48
1:D:2845:PHE:CE1	1:C:2676:SER:HB2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:505:ARG:HA	1:E:508:GLN:HB2	1.94	0.48
1:E:1178:ASN:HB2	1:E:1185:LEU:HD11	1.94	0.48
1:E:1533:VAL:HG13	1:E:1582:HIS:HB2	1.95	0.48
1:E:2592:PRO:HA	1:E:2599:TRP:CD1	2.49	0.48
1:E:2645:ASP:OD1	1:E:2647:VAL:HG23	2.14	0.48
1:E:2926:SER:HB3	1:E:2976:TRP:HH2	1.79	0.48
1:F:444:ILE:HD12	1:F:655:ALA:HA	1.95	0.48
1:F:505:ARG:HA	1:F:508:GLN:HB2	1.94	0.48
1:F:1625:LEU:HD11	1:F:1660:LEU:HB3	1.95	0.48
1:F:2170:ARG:HB2	1:F:2175:ARG:HG3	1.95	0.48
1:F:2554:ALA:HB1	1:F:2614:LYS:HD2	1.95	0.48
1:F:2762:VAL:HG22	1:F:2822:LEU:HB2	1.96	0.48
1:B:444:ILE:HD12	1:B:655:ALA:HA	1.95	0.48
1:B:505:ARG:HA	1:B:508:GLN:HB2	1.94	0.48
1:B:656:THR:HG1	1:B:880:HIS:CE1	2.31	0.48
1:B:868:ARG:HB3	1:B:872:ARG:NH1	2.28	0.48
1:B:2088:ARG:O	1:B:2188:ARG:NH1	2.47	0.48
1:B:2170:ARG:HB2	1:B:2175:ARG:HG3	1.95	0.48
1:C:868:ARG:HB3	1:C:872:ARG:NH1	2.28	0.48
1:C:2503:LYS:HE3	1:C:2505:GLU:OE2	2.13	0.48
1:D:1435:VAL:HG22	1:D:1703:ILE:HD12	1.95	0.48
1:D:1625:LEU:HD11	1:D:1660:LEU:HB3	1.96	0.48
1:E:1103:VAL:HG21	1:E:1269:MET:SD	2.54	0.48
1:E:1625:LEU:HD11	1:E:1660:LEU:HB3	1.96	0.48
1:E:2291:LEU:HD21	1:E:2332:LEU:HD22	1.95	0.48
1:F:1435:VAL:HG22	1:F:1703:ILE:HD12	1.95	0.48
1:F:2666:PRO:CB	1:F:2727:VAL:HA	2.44	0.48
1:A:1637:VAL:HG21	1:A:1671:TRP:CD2	2.48	0.48
1:A:2094:HIS:O	1:A:2098:THR:HG22	2.13	0.48
1:B:1207:VAL:O	1:B:1207:VAL:HG13	2.12	0.48
1:C:1291:LYS:HZ3	1:C:1346:PRO:HA	1.79	0.48
1:D:790:ALA:HB3	1:D:826:LEU:HD21	1.95	0.48
1:D:1291:LYS:HA	1:D:1344:ALA:HB3	1.95	0.48
1:D:2645:ASP:OD1	1:D:2647:VAL:HG23	2.14	0.48
1:E:803:GLU:OE1	1:E:2431:THR:CG2	2.62	0.48
1:E:2554:ALA:HB2	1:B:2582:GLN:HB3	1.94	0.48
1:F:868:ARG:HB3	1:F:872:ARG:NH1	2.28	0.48
1:A:184:LEU:HB3	1:A:311:TRP:HE3	1.78	0.48
1:A:1178:ASN:HB2	1:A:1185:LEU:HD11	1.94	0.48
1:A:2648:ALA:HA	1:A:2718:VAL:HG13	1.96	0.48
1:A:2667:THR:HB	1:A:3081:LEU:HD11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2926:SER:HB3	1:A:2976:TRP:HH2	1.79	0.48
1:B:1103:VAL:HG21	1:B:1269:MET:SD	2.54	0.48
1:B:2137:GLU:O	1:B:2163:THR:N	2.30	0.48
1:B:2692:MET:HE3	1:B:2713:VAL:HB	1.96	0.48
1:C:184:LEU:HD13	1:C:311:TRP:HB3	1.96	0.48
1:C:315:VAL:C	1:C:317:LEU:H	2.22	0.48
1:C:2170:ARG:HB2	1:C:2175:ARG:HG3	1.95	0.48
1:C:2334:HIS:HB3	1:C:2391:LYS:HA	1.94	0.48
1:D:2180:LYS:NZ	1:D:2962:ASP:HB3	2.29	0.48
1:D:2334:HIS:HB3	1:D:2391:LYS:HA	1.94	0.48
1:D:2583:PHE:HB2	1:C:2614:LYS:NZ	2.29	0.48
1:D:2676:SER:HB2	1:C:2845:PHE:CE1	2.49	0.48
1:E:868:ARG:HB3	1:E:872:ARG:NH1	2.28	0.48
1:E:1291:LYS:HA	1:E:1344:ALA:HB3	1.95	0.48
1:E:2614:LYS:NZ	1:B:2583:PHE:HB2	2.29	0.48
1:E:2648:ALA:HA	1:E:2718:VAL:HG13	1.96	0.48
1:E:2667:THR:HB	1:E:3081:LEU:HD11	1.96	0.48
1:E:2848:GLY:H	1:E:3001:HIS:CD2	2.32	0.48
1:F:1178:ASN:HB2	1:F:1185:LEU:HD11	1.94	0.48
1:F:2592:PRO:HA	1:F:2599:TRP:CD1	2.49	0.48
1:F:2848:GLY:H	1:F:3001:HIS:CD2	2.31	0.48
1:B:671:THR:HB	1:B:682:ASN:CG	2.38	0.48
1:B:2666:PRO:CB	1:B:2727:VAL:HA	2.44	0.48
1:D:2167:THR:HB	1:D:2198:ALA:HB3	1.96	0.48
1:D:2666:PRO:CB	1:D:2727:VAL:HA	2.44	0.48
1:D:2670:MET:HE2	1:D:2675:PRO:HB3	1.96	0.48
1:D:3065:PRO:O	1:D:3069:GLN:N	2.42	0.48
1:E:2583:PHE:HB2	1:B:2614:LYS:NZ	2.29	0.48
1:E:2762:VAL:HG22	1:E:2822:LEU:HB2	1.96	0.48
1:E:2845:PHE:CE1	1:B:2676:SER:HB2	2.49	0.48
1:F:305:ILE:HD13	1:F:327:GLU:HG2	1.95	0.48
1:F:501:VAL:HA	1:F:504:LYS:HE2	1.96	0.48
1:F:1019:PHE:CE2	1:F:1035:VAL:HG23	2.49	0.48
1:F:1401:THR:CB	1:C:2286:ARG:HH22	2.27	0.48
1:F:2692:MET:HE3	1:F:2713:VAL:HB	1.96	0.48
1:F:2736:PRO:HG2	1:F:2746:SER:HA	1.95	0.48
1:A:301:LEU:HD13	1:A:330:LEU:HD22	1.96	0.48
1:A:792:ALA:HA	1:A:799:PHE:CE2	2.43	0.48
1:B:305:ILE:HD13	1:B:327:GLU:HG2	1.95	0.48
1:B:936:ARG:O	1:B:941:ARG:N	2.44	0.48
1:B:1651:THR:HB	1:B:1656:LYS:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2762:VAL:HG22	1:B:2822:LEU:HB2	1.96	0.48
1:C:301:LEU:HD13	1:C:330:LEU:HD22	1.96	0.48
1:C:1178:ASN:HB2	1:C:1185:LEU:HD11	1.94	0.48
1:C:1634:ARG:HH11	1:C:1639:ALA:N	2.08	0.48
1:C:2088:ARG:O	1:C:2188:ARG:NH1	2.47	0.48
1:C:2094:HIS:O	1:C:2098:THR:HG22	2.13	0.48
1:C:2667:THR:HB	1:C:3081:LEU:HD11	1.95	0.48
1:C:2891:LYS:HZ1	1:C:2904:THR:N	2.12	0.48
1:C:2926:SER:HB3	1:C:2976:TRP:HH2	1.79	0.48
1:D:2848:GLY:H	1:D:3001:HIS:CD2	2.31	0.48
1:E:2060:TRP:HZ2	1:E:2966:ASP:HA	1.79	0.48
1:E:2843:GLN:HG2	1:E:2845:PHE:CZ	2.49	0.48
1:F:808:ALA:HB3	1:F:811:ASP:HB2	1.96	0.48
1:F:961:ARG:CZ	1:F:1196:GLY:HA2	2.44	0.48
1:F:1103:VAL:HG21	1:F:1269:MET:SD	2.54	0.48
1:F:2088:ARG:O	1:F:2188:ARG:NH1	2.47	0.48
1:F:2670:MET:HE2	1:F:2675:PRO:HB3	1.96	0.48
1:A:305:ILE:HD13	1:A:327:GLU:HG2	1.95	0.48
1:A:836:VAL:HG12	1:A:837:VAL:N	2.29	0.48
1:A:2088:ARG:O	1:A:2188:ARG:NH1	2.47	0.48
1:A:2274:LEU:HD23	1:A:2277:ILE:HD12	1.94	0.48
1:A:2762:VAL:HG22	1:A:2822:LEU:HB2	1.96	0.48
1:A:2843:GLN:HG2	1:A:2845:PHE:CZ	2.49	0.48
1:B:315:VAL:C	1:B:317:LEU:H	2.22	0.48
1:B:501:VAL:HA	1:B:504:LYS:HE2	1.96	0.48
1:B:1508:ILE:HB	1:B:1562:ARG:HD3	1.96	0.48
1:B:2094:HIS:O	1:B:2098:THR:HG22	2.13	0.48
1:B:2249:MET:O	1:B:2250:SER:OG	2.28	0.48
1:B:2670:MET:HE2	1:B:2675:PRO:HB3	1.96	0.48
1:B:2926:SER:HB3	1:B:2976:TRP:HH2	1.79	0.48
1:C:1103:VAL:HG21	1:C:1269:MET:SD	2.54	0.48
1:C:1133:VAL:O	1:C:1193:ALA:N	2.42	0.48
1:C:1291:LYS:HA	1:C:1344:ALA:HB3	1.95	0.48
1:C:2098:THR:O	1:C:2102:TRP:CG	2.66	0.48
1:C:2557:LEU:HD22	1:C:2613:ARG:HB2	1.94	0.48
1:D:1103:VAL:HG21	1:D:1269:MET:SD	2.54	0.48
1:D:1467:VAL:HA	1:D:1605:LYS:HD2	1.96	0.48
1:E:1996:PRO:O	1:E:2000:LEU:N	2.41	0.48
1:F:171:LYS:HE3	1:F:173:ALA:HB3	1.96	0.48
1:F:361:THR:HG21	1:F:377:PRO:HG3	1.95	0.48
1:F:1276:GLN:HE21	1:F:1292:LEU:HD13	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2291:LEU:HD21	1:F:2332:LEU:HD22	1.95	0.48
1:A:184:LEU:HD13	1:A:311:TRP:HB3	1.96	0.48
1:A:365:ALA:HB3	1:A:366:PRO:HD3	1.96	0.48
1:A:683:GLY:CA	1:A:700:ASN:HB2	2.44	0.48
1:A:1212:ALA:O	1:A:1342:ARG:NH2	2.45	0.48
1:A:2088:ARG:C	1:A:2188:ARG:NH1	2.72	0.48
1:A:2170:ARG:HB2	1:A:2175:ARG:HG3	1.96	0.48
1:B:176:VAL:O	1:B:180:ALA:N	2.36	0.48
1:B:1457:GLU:OE2	1:B:1614:TYR:OH	2.30	0.48
1:B:2098:THR:O	1:B:2102:TRP:CG	2.67	0.48
1:B:2645:ASP:OD1	1:B:2647:VAL:HG23	2.14	0.48
1:C:832:ASP:O	1:C:836:VAL:HG23	2.14	0.48
1:C:2666:PRO:CB	1:C:2727:VAL:HA	2.44	0.48
1:C:2670:MET:HE2	1:C:2675:PRO:HB3	1.96	0.48
1:D:1111:PHE:HE1	1:D:1129:LEU:HD11	1.78	0.47
1:D:2088:ARG:C	1:D:2188:ARG:NH1	2.72	0.47
1:D:2098:THR:O	1:D:2102:TRP:CG	2.67	0.47
1:D:2843:GLN:HG2	1:D:2845:PHE:CZ	2.49	0.47
1:E:171:LYS:HE3	1:E:173:ALA:HB3	1.96	0.47
1:E:184:LEU:HD13	1:E:311:TRP:HB3	1.96	0.47
1:E:674:TRP:CD1	1:E:895:THR:HG21	2.49	0.47
1:E:2088:ARG:C	1:E:2188:ARG:NH1	2.72	0.47
1:E:2820:ILE:HD12	1:E:2822:LEU:HD21	1.95	0.47
1:F:745:THR:OG1	1:F:834:GLU:O	2.19	0.47
1:F:832:ASP:O	1:F:836:VAL:HG23	2.14	0.47
1:F:1038:ALA:HA	1:F:1126:ILE:CA	2.44	0.47
1:F:1467:VAL:HA	1:F:1605:LYS:HD2	1.96	0.47
1:F:2060:TRP:HZ2	1:F:2966:ASP:HA	1.79	0.47
1:F:2094:HIS:O	1:F:2098:THR:HG22	2.14	0.47
1:F:2180:LYS:NZ	1:F:2962:ASP:HB3	2.29	0.47
1:B:641:ASP:OD1	1:B:641:ASP:N	2.47	0.47
1:B:1111:PHE:HE1	1:B:1129:LEU:HD11	1.78	0.47
1:B:1276:GLN:HE21	1:B:1292:LEU:HD13	1.79	0.47
1:B:1590:VAL:HG11	1:B:1671:TRP:CE2	2.50	0.47
1:B:2088:ARG:C	1:B:2188:ARG:NH1	2.72	0.47
1:B:2418:GLY:O	1:B:2422:GLU:N	2.40	0.47
1:B:2557:LEU:HD22	1:B:2613:ARG:HB2	1.94	0.47
1:B:2592:PRO:HA	1:B:2599:TRP:CD1	2.49	0.47
1:C:1996:PRO:O	1:C:2000:LEU:N	2.41	0.47
1:C:2167:THR:HB	1:C:2198:ALA:HB3	1.96	0.47
1:C:2418:GLY:O	1:C:2422:GLU:N	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2645:ASP:OD1	1:C:2647:VAL:HG23	2.14	0.47
1:D:501:VAL:HA	1:D:504:LYS:HE2	1.96	0.47
1:D:997:GLU:HB3	1:D:1009:PRO:CG	2.45	0.47
1:D:1634:ARG:HH11	1:D:1639:ALA:N	2.08	0.47
1:D:2060:TRP:HZ2	1:D:2966:ASP:HA	1.79	0.47
1:D:2094:HIS:O	1:D:2098:THR:HG22	2.13	0.47
1:D:2210:VAL:HB	1:D:2277:ILE:HD11	1.96	0.47
1:D:2452:ASP:CG	1:D:2453:LEU:N	2.73	0.47
1:D:2461:VAL:HG21	1:D:2751:VAL:HG13	1.96	0.47
1:E:301:LEU:HD13	1:E:330:LEU:HD22	1.96	0.47
1:E:606:ASN:HD22	1:E:606:ASN:H	1.63	0.47
1:E:832:ASP:O	1:E:836:VAL:HG23	2.14	0.47
1:F:1040:THR:O	1:F:1041:ALA:HB2	2.13	0.47
1:F:1590:VAL:HG11	1:F:1671:TRP:CE2	2.50	0.47
1:F:2000:LEU:HD12	1:C:2000:LEU:HD12	1.96	0.47
1:F:2614:LYS:NZ	1:A:2583:PHE:HB2	2.29	0.47
1:F:2676:SER:HB2	1:A:2845:PHE:CE1	2.49	0.47
1:A:171:LYS:HE3	1:A:173:ALA:HB3	1.96	0.47
1:A:444:ILE:HD12	1:A:655:ALA:HA	1.95	0.47
1:A:501:VAL:HA	1:A:504:LYS:HE2	1.96	0.47
1:A:1291:LYS:HA	1:A:1344:ALA:HB3	1.94	0.47
1:A:1996:PRO:O	1:A:2000:LEU:N	2.41	0.47
1:A:2098:THR:O	1:A:2102:TRP:CG	2.67	0.47
1:A:2167:THR:HB	1:A:2198:ALA:HB3	1.96	0.47
1:A:2666:PRO:CB	1:A:2727:VAL:HA	2.44	0.47
1:A:2820:ILE:HD12	1:A:2822:LEU:HD21	1.95	0.47
1:B:836:VAL:HG12	1:B:837:VAL:N	2.29	0.47
1:B:2884:ASP:HA	1:B:2916:ARG:NH1	2.30	0.47
1:C:133:GLN:HG2	1:C:355:GLY:HA2	1.94	0.47
1:C:171:LYS:HE3	1:C:173:ALA:HB3	1.96	0.47
1:C:501:VAL:HA	1:C:504:LYS:HE2	1.96	0.47
1:C:803:GLU:OE1	1:C:2431:THR:CG2	2.62	0.47
1:C:1467:VAL:HA	1:C:1605:LYS:HD2	1.96	0.47
1:C:2884:ASP:HA	1:C:2916:ARG:NH1	2.29	0.47
1:D:2252:VAL:HG22	1:D:2255:ARG:NH2	2.30	0.47
1:D:2592:PRO:HA	1:D:2599:TRP:CD1	2.49	0.47
1:E:782:ARG:HD3	1:E:853:LEU:HD22	1.96	0.47
1:E:1276:GLN:HE21	1:E:1292:LEU:HD13	1.79	0.47
1:E:2137:GLU:O	1:E:2163:THR:N	2.30	0.47
1:E:2170:ARG:HB2	1:E:2175:ARG:HG3	1.95	0.47
1:E:2180:LYS:NZ	1:E:2962:ASP:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2891:LYS:HZ1	1:E:2904:THR:N	2.13	0.47
1:F:674:TRP:CD1	1:F:895:THR:HG21	2.50	0.47
1:F:1291:LYS:HA	1:F:1344:ALA:HB3	1.95	0.47
1:F:2583:PHE:HB2	1:A:2614:LYS:NZ	2.29	0.47
1:A:782:ARG:HD3	1:A:853:LEU:HD22	1.97	0.47
1:A:2291:LEU:HD21	1:A:2332:LEU:HD22	1.95	0.47
1:A:2348:GLN:O	1:A:2416:MET:HG3	2.15	0.47
1:B:301:LEU:HD13	1:B:330:LEU:HD22	1.95	0.47
1:B:674:TRP:CD1	1:B:895:THR:HG21	2.49	0.47
1:B:1362:MET:HG3	1:B:1430:VAL:HG21	1.95	0.47
1:B:1996:PRO:O	1:B:2000:LEU:N	2.41	0.47
1:B:2736:PRO:HG2	1:B:2746:SER:HA	1.96	0.47
1:C:305:ILE:HD13	1:C:327:GLU:HG2	1.95	0.47
1:C:2060:TRP:HZ2	1:C:2966:ASP:HA	1.79	0.47
1:C:2210:VAL:HB	1:C:2277:ILE:HD11	1.97	0.47
1:D:2583:PHE:HB2	1:C:2614:LYS:HG3	1.97	0.47
1:D:2614:LYS:HG3	1:C:2583:PHE:HB2	1.97	0.47
1:D:2692:MET:HE3	1:D:2713:VAL:HB	1.96	0.47
1:D:2848:GLY:HA2	1:C:2728:GLY:HA2	1.97	0.47
1:D:2891:LYS:HZ1	1:D:2904:THR:N	2.13	0.47
1:E:444:ILE:HD12	1:E:655:ALA:HA	1.95	0.47
1:E:647:THR:HG22	1:E:901:ILE:HD11	1.96	0.47
1:F:2681:THR:O	1:F:2764:ALA:HA	2.15	0.47
1:A:544:ILE:C	1:A:546:HIS:H	2.22	0.47
1:A:606:ASN:H	1:A:606:ASN:HD22	1.62	0.47
1:A:1276:GLN:HE21	1:A:1292:LEU:HD13	1.79	0.47
1:A:1435:VAL:HG22	1:A:1703:ILE:HD12	1.95	0.47
1:A:1533:VAL:HG13	1:A:1582:HIS:HB2	1.95	0.47
1:A:2452:ASP:CG	1:A:2453:LEU:N	2.73	0.47
1:A:2592:PRO:HA	1:A:2599:TRP:CD1	2.49	0.47
1:A:2645:ASP:OD1	1:A:2647:VAL:HG23	2.13	0.47
1:B:184:LEU:HB3	1:B:311:TRP:HE3	1.78	0.47
1:B:1467:VAL:HA	1:B:1605:LYS:HD2	1.96	0.47
1:C:670:GLY:HA3	1:C:899:ALA:HB2	1.96	0.47
1:C:836:VAL:HG12	1:C:837:VAL:N	2.29	0.47
1:C:1111:PHE:HE1	1:C:1129:LEU:HD11	1.78	0.47
1:C:2180:LYS:NZ	1:C:2962:ASP:HB3	2.29	0.47
1:C:2692:MET:HE3	1:C:2713:VAL:HB	1.96	0.47
1:C:2843:GLN:HG2	1:C:2845:PHE:CZ	2.49	0.47
1:D:1276:GLN:HE21	1:D:1292:LEU:HD13	1.79	0.47
1:D:2376:LEU:HD22	1:D:2392:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:361:THR:HG21	1:E:377:PRO:HG3	1.95	0.47
1:E:365:ALA:HB3	1:E:366:PRO:HD3	1.97	0.47
1:E:808:ALA:HB3	1:E:811:ASP:HB2	1.96	0.47
1:E:1435:VAL:HG22	1:E:1703:ILE:HD12	1.95	0.47
1:E:2167:THR:HB	1:E:2198:ALA:HB3	1.96	0.47
1:E:2681:THR:O	1:E:2764:ALA:HA	2.15	0.47
1:F:670:GLY:HA3	1:F:899:ALA:HB2	1.96	0.47
1:F:966:PRO:O	1:F:970:ILE:N	2.48	0.47
1:F:976:TRP:CG	1:F:976:TRP:O	2.68	0.47
1:F:997:GLU:HB3	1:F:1009:PRO:CG	2.44	0.47
1:F:1699:ARG:HG3	1:F:1730:GLU:HB3	1.97	0.47
1:F:2452:ASP:CG	1:F:2453:LEU:N	2.73	0.47
1:A:141:ALA:O	1:A:145:MET:HB2	2.14	0.47
1:A:361:THR:HG21	1:A:377:PRO:HG3	1.95	0.47
1:A:641:ASP:N	1:A:641:ASP:OD1	2.48	0.47
1:A:803:GLU:OE1	1:A:2431:THR:CG2	2.62	0.47
1:A:2056:PHE:CZ	1:A:2180:LYS:HE2	2.47	0.47
1:A:2670:MET:HE2	1:A:2675:PRO:HB3	1.96	0.47
1:B:171:LYS:HE3	1:B:173:ALA:HB3	1.96	0.47
1:B:361:THR:HG21	1:B:377:PRO:HG3	1.95	0.47
1:B:726:ILE:HG22	1:B:730:MET:HE3	1.95	0.47
1:B:803:GLU:OE1	1:B:2431:THR:CG2	2.62	0.47
1:B:2291:LEU:HD21	1:B:2332:LEU:HD22	1.95	0.47
1:B:2352:ILE:HG12	1:B:2412:ALA:HB1	1.96	0.47
1:C:674:TRP:CD1	1:C:895:THR:HG21	2.49	0.47
1:C:1455:VAL:HB	1:C:1480:ARG:HH12	1.80	0.47
1:C:2592:PRO:HA	1:C:2599:TRP:CD1	2.49	0.47
1:D:670:GLY:HA3	1:D:899:ALA:HB2	1.96	0.47
1:D:832:ASP:O	1:D:836:VAL:HG23	2.14	0.47
1:D:2000:LEU:HD12	1:B:2000:LEU:HD12	1.97	0.47
1:D:2348:GLN:O	1:D:2416:MET:HG3	2.15	0.47
1:D:2610:ARG:NH1	1:D:2700:LEU:HD11	2.25	0.47
1:D:2667:THR:HB	1:D:3081:LEU:HD11	1.96	0.47
1:D:2926:SER:HB3	1:D:2976:TRP:HH2	1.79	0.47
1:E:141:ALA:O	1:E:145:MET:HB2	2.14	0.47
1:E:305:ILE:HD13	1:E:327:GLU:HG2	1.95	0.47
1:E:683:GLY:CA	1:E:700:ASN:HB2	2.44	0.47
1:E:997:GLU:HB3	1:E:1009:PRO:CG	2.45	0.47
1:E:2348:GLN:O	1:E:2416:MET:HG3	2.15	0.47
1:E:2452:ASP:CG	1:E:2453:LEU:N	2.73	0.47
1:E:2848:GLY:HA2	1:B:2728:GLY:HA2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2098:THR:O	1:F:2102:TRP:CG	2.67	0.47
1:F:2252:VAL:HG22	1:F:2255:ARG:NH2	2.30	0.47
1:A:315:VAL:C	1:A:317:LEU:H	2.22	0.47
1:A:365:ALA:O	1:A:369:ARG:N	2.42	0.47
1:A:647:THR:HG22	1:A:901:ILE:HD11	1.96	0.47
1:A:713:ALA:O	1:A:868:ARG:NH2	2.48	0.47
1:A:2692:MET:HE3	1:A:2713:VAL:HB	1.96	0.47
1:C:790:ALA:HB3	1:C:826:LEU:HD21	1.95	0.47
1:D:713:ALA:O	1:D:868:ARG:NH2	2.48	0.47
1:D:782:ARG:HD3	1:D:853:LEU:HD22	1.97	0.47
1:D:808:ALA:HB3	1:D:811:ASP:HB2	1.96	0.47
1:D:1072:TRP:HE1	1:D:1077:VAL:HG22	1.80	0.47
1:D:2614:LYS:NZ	1:C:2583:PHE:HB2	2.29	0.47
1:E:670:GLY:HA3	1:E:899:ALA:HB2	1.96	0.47
1:E:1651:THR:HB	1:E:1656:LYS:HD2	1.95	0.47
1:E:2252:VAL:HG22	1:E:2255:ARG:NH2	2.30	0.47
1:F:210:VAL:HG22	1:F:287:PHE:CD1	2.50	0.47
1:F:301:LEU:HD13	1:F:330:LEU:HD22	1.96	0.47
1:F:836:VAL:HG12	1:F:837:VAL:N	2.29	0.47
1:F:961:ARG:NE	1:F:1196:GLY:HA2	2.29	0.47
1:F:2088:ARG:C	1:F:2188:ARG:NH1	2.72	0.47
1:F:2348:GLN:O	1:F:2416:MET:HG3	2.15	0.47
1:F:2407:GLU:HG2	1:F:2411:LYS:HE3	1.96	0.47
1:F:2667:THR:HB	1:F:3081:LEU:HD11	1.96	0.47
1:F:2700:LEU:HD22	1:A:2697:HIS:CD2	2.43	0.47
1:F:2800:PHE:CE1	1:F:2812:LEU:HD22	2.50	0.47
1:F:3065:PRO:O	1:F:3069:GLN:N	2.42	0.47
1:A:674:TRP:CD1	1:A:895:THR:HG21	2.50	0.47
1:A:808:ALA:HB3	1:A:811:ASP:HB2	1.96	0.47
1:A:1103:VAL:HG21	1:A:1269:MET:SD	2.54	0.47
1:A:1467:VAL:HA	1:A:1605:LYS:HD2	1.96	0.47
1:A:1651:THR:HB	1:A:1656:LYS:HD2	1.95	0.47
1:A:2180:LYS:NZ	1:A:2962:ASP:HB3	2.29	0.47
1:A:2461:VAL:HG21	1:A:2751:VAL:HG13	1.96	0.47
1:A:2681:THR:O	1:A:2764:ALA:HA	2.15	0.47
1:B:647:THR:HG22	1:B:901:ILE:HD11	1.96	0.47
1:B:778:THR:HG21	1:B:854:GLY:HA3	1.97	0.47
1:B:782:ARG:HD3	1:B:853:LEU:HD22	1.97	0.47
1:B:832:ASP:O	1:B:836:VAL:HG23	2.14	0.47
1:B:2180:LYS:NZ	1:B:2962:ASP:HB3	2.29	0.47
1:B:2252:VAL:HG22	1:B:2255:ARG:NH2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:141:ALA:O	1:C:145:MET:HB2	2.15	0.47
1:C:641:ASP:N	1:C:641:ASP:OD1	2.47	0.47
1:C:713:ALA:O	1:C:868:ARG:NH2	2.48	0.47
1:C:808:ALA:HB3	1:C:811:ASP:HB2	1.96	0.47
1:C:976:TRP:O	1:C:976:TRP:CG	2.68	0.47
1:C:997:GLU:HB3	1:C:1009:PRO:CG	2.45	0.47
1:C:2376:LEU:HD22	1:C:2392:VAL:HG21	1.97	0.47
1:D:674:TRP:CD1	1:D:895:THR:HG21	2.49	0.47
1:D:803:GLU:OE1	1:D:2431:THR:CG2	2.62	0.47
1:D:2728:GLY:HA2	1:C:2848:GLY:HA2	1.97	0.47
1:D:2762:VAL:HG22	1:D:2822:LEU:HB2	1.96	0.47
1:D:2773:GLU:HA	1:D:2776:ILE:HG22	1.97	0.47
1:E:1590:VAL:HG11	1:E:1671:TRP:CE2	2.50	0.47
1:E:1699:ARG:HG3	1:E:1730:GLU:HB3	1.97	0.47
1:E:2692:MET:HE3	1:E:2713:VAL:HB	1.96	0.47
1:F:602:ARG:NH2	1:F:641:ASP:OD1	2.27	0.47
1:F:683:GLY:CA	1:F:700:ASN:HB2	2.44	0.47
1:F:1381:ASP:OD1	1:F:1391:SER:OG	2.22	0.47
1:F:2210:VAL:HB	1:F:2277:ILE:HD11	1.97	0.47
1:F:2630:ASP:HB3	1:F:2633:VAL:HG23	1.97	0.47
1:F:2843:GLN:HG2	1:F:2845:PHE:CZ	2.49	0.47
1:A:778:THR:HG21	1:A:854:GLY:HA3	1.97	0.47
1:B:141:ALA:O	1:B:145:MET:HB2	2.15	0.47
1:B:544:ILE:C	1:B:546:HIS:H	2.22	0.47
1:B:713:ALA:O	1:B:868:ARG:NH2	2.48	0.47
1:B:2452:ASP:CG	1:B:2453:LEU:N	2.73	0.47
1:B:2667:THR:HB	1:B:3081:LEU:HD11	1.96	0.47
1:C:745:THR:HG22	1:C:747:LEU:H	1.80	0.47
1:C:2088:ARG:C	1:C:2188:ARG:NH1	2.72	0.47
1:C:2461:VAL:HG21	1:C:2751:VAL:HG13	1.96	0.47
1:C:2773:GLU:HA	1:C:2776:ILE:HG22	1.97	0.47
1:D:647:THR:HG22	1:D:901:ILE:HD11	1.96	0.47
1:D:1590:VAL:HG11	1:D:1671:TRP:CE2	2.50	0.47
1:D:1996:PRO:O	1:D:2000:LEU:N	2.41	0.47
1:E:210:VAL:HG22	1:E:287:PHE:CD1	2.50	0.47
1:E:501:VAL:HA	1:E:504:LYS:HE2	1.96	0.47
1:E:836:VAL:HG12	1:E:837:VAL:N	2.29	0.47
1:E:2461:VAL:HG21	1:E:2751:VAL:HG13	1.96	0.47
1:E:2736:PRO:HG2	1:E:2746:SER:HA	1.96	0.47
1:F:141:ALA:O	1:F:145:MET:HB2	2.15	0.47
1:F:518:ASP:HA	1:F:543:GLY:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:647:THR:HG22	1:F:901:ILE:HD11	1.96	0.47
1:F:959:ALA:HA	1:F:1038:ALA:HB2	1.97	0.47
1:F:1037:ASP:HB2	1:F:1042:MET:H	1.80	0.47
1:F:2452:ASP:CG	1:F:2453:LEU:H	2.23	0.47
1:F:2645:ASP:OD1	1:F:2647:VAL:HG23	2.13	0.47
1:F:2770:LEU:HB3	1:F:2815:GLN:HB3	1.97	0.47
1:F:2785:ALA:HB1	1:F:2809:LEU:HG	1.97	0.47
1:A:832:ASP:O	1:A:836:VAL:HG23	2.14	0.47
1:A:1699:ARG:HG3	1:A:1730:GLU:HB3	1.97	0.47
1:B:997:GLU:HB3	1:B:1009:PRO:CG	2.44	0.47
1:B:1625:LEU:HD11	1:B:1660:LEU:HB3	1.96	0.47
1:B:2376:LEU:HD22	1:B:2392:VAL:HG21	1.97	0.47
1:B:2461:VAL:HG21	1:B:2751:VAL:HG13	1.96	0.47
1:B:2648:ALA:HA	1:B:2718:VAL:HG13	1.96	0.47
1:C:210:VAL:HG22	1:C:287:PHE:CD1	2.50	0.47
1:C:1072:TRP:HE1	1:C:1077:VAL:HG22	1.80	0.47
1:C:1276:GLN:HE21	1:C:1292:LEU:HD13	1.79	0.47
1:C:2348:GLN:O	1:C:2416:MET:HG3	2.15	0.47
1:D:996:LEU:HA	1:D:1010:LEU:HA	1.97	0.47
1:D:1450:ALA:N	1:D:1613:ARG:O	2.48	0.47
1:D:2648:ALA:HA	1:D:2718:VAL:HG13	1.96	0.47
1:E:778:THR:HG21	1:E:854:GLY:HA3	1.97	0.47
1:E:966:PRO:O	1:E:970:ILE:N	2.48	0.47
1:E:1467:VAL:HA	1:E:1605:LYS:HD2	1.96	0.47
1:E:2583:PHE:HB2	1:B:2614:LYS:HG3	1.97	0.47
1:F:184:LEU:HD13	1:F:311:TRP:HB3	1.96	0.47
1:F:713:ALA:O	1:F:868:ARG:NH2	2.48	0.47
1:F:1508:ILE:HB	1:F:1562:ARG:HD3	1.96	0.47
1:F:2884:ASP:HA	1:F:2916:ARG:NH1	2.29	0.47
1:A:198:ILE:HG12	1:C:1087:PHE:CE1	2.50	0.47
1:A:745:THR:HG22	1:A:747:LEU:H	1.80	0.47
1:A:1455:VAL:HB	1:A:1480:ARG:HH12	1.80	0.47
1:A:2630:ASP:HB3	1:A:2633:VAL:HG23	1.97	0.47
1:A:2884:ASP:HA	1:A:2916:ARG:NH1	2.29	0.47
1:B:210:VAL:HG22	1:B:287:PHE:CD1	2.50	0.47
1:B:365:ALA:O	1:B:369:ARG:N	2.42	0.47
1:B:966:PRO:O	1:B:970:ILE:N	2.48	0.47
1:B:1072:TRP:HE1	1:B:1077:VAL:HG22	1.80	0.47
1:B:2348:GLN:O	1:B:2416:MET:HG3	2.15	0.47
1:B:2843:GLN:HG2	1:B:2845:PHE:CZ	2.49	0.47
1:C:1699:ARG:HG3	1:C:1730:GLU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2252:VAL:HG22	1:C:2255:ARG:NH2	2.30	0.47
1:D:1087:PHE:CE1	1:E:198:ILE:HG12	2.50	0.46
1:D:1508:ILE:HB	1:D:1562:ARG:HD3	1.97	0.46
1:D:2554:ALA:HB1	1:D:2614:LYS:HD2	1.95	0.46
1:D:2681:THR:O	1:D:2764:ALA:HA	2.15	0.46
1:E:2543:PHE:HA	1:E:2624:GLN:HE22	1.81	0.46
1:E:2670:MET:HE2	1:E:2675:PRO:HB3	1.96	0.46
1:E:2961:LEU:HD22	1:E:2976:TRP:CD1	2.51	0.46
1:F:585:HIS:HD2	1:F:586:SER:H	1.62	0.46
1:F:782:ARG:HD3	1:F:853:LEU:HD22	1.97	0.46
1:F:959:ALA:CB	1:F:1126:ILE:HG23	2.34	0.46
1:F:2376:LEU:HD22	1:F:2392:VAL:HG21	1.97	0.46
1:A:670:GLY:HA3	1:A:899:ALA:HB2	1.96	0.46
1:A:997:GLU:HB3	1:A:1009:PRO:CG	2.45	0.46
1:A:2482:GLU:HG2	1:A:2956:PRO:HB3	1.97	0.46
1:A:2736:PRO:HG2	1:A:2746:SER:HA	1.96	0.46
1:B:184:LEU:HD13	1:B:311:TRP:HB3	1.96	0.46
1:B:1455:VAL:HB	1:B:1480:ARG:HH12	1.80	0.46
1:B:2060:TRP:HZ2	1:B:2966:ASP:HA	1.79	0.46
1:B:2252:VAL:HG13	1:B:2255:ARG:HH21	1.81	0.46
1:B:2452:ASP:CG	1:B:2453:LEU:H	2.24	0.46
1:B:2681:THR:O	1:B:2764:ALA:HA	2.15	0.46
1:B:2785:ALA:HB1	1:B:2809:LEU:HG	1.97	0.46
1:C:365:ALA:HB3	1:C:366:PRO:HD3	1.96	0.46
1:C:575:HIS:CD2	1:C:644:LEU:HD22	2.49	0.46
1:C:996:LEU:HA	1:C:1010:LEU:HA	1.97	0.46
1:C:1508:ILE:HB	1:C:1562:ARG:HD3	1.97	0.46
1:C:2252:VAL:HG13	1:C:2255:ARG:HH21	1.80	0.46
1:C:2554:ALA:HB1	1:C:2614:LYS:HD2	1.95	0.46
1:C:2891:LYS:HZ2	1:C:2903:GLU:CB	2.28	0.46
1:D:976:TRP:CG	1:D:976:TRP:O	2.68	0.46
1:D:2352:ILE:HG12	1:D:2412:ALA:HB1	1.96	0.46
1:E:684:MET:HG3	1:E:895:THR:HA	1.98	0.46
1:E:713:ALA:O	1:E:868:ARG:NH2	2.48	0.46
1:E:976:TRP:CG	1:E:976:TRP:O	2.68	0.46
1:E:1634:ARG:NH1	1:E:1639:ALA:H	2.11	0.46
1:F:540:ASN:ND2	1:F:544:ILE:HG13	2.30	0.46
1:F:641:ASP:OD1	1:F:641:ASP:N	2.47	0.46
1:F:2407:GLU:HB3	1:F:2411:LYS:CD	2.44	0.46
1:F:2648:ALA:HA	1:F:2718:VAL:HG13	1.96	0.46
1:A:210:VAL:HG22	1:A:287:PHE:CD1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1450:ALA:N	1:A:1613:ARG:O	2.48	0.46
1:A:2060:TRP:HZ2	1:A:2966:ASP:HA	1.79	0.46
1:A:2376:LEU:HD22	1:A:2392:VAL:HG21	1.97	0.46
1:B:84:GLU:HB2	1:B:85:PRO:HD3	1.97	0.46
1:B:1087:PHE:CE1	1:C:198:ILE:HG12	2.50	0.46
1:B:1346:PRO:HG2	1:B:1699:ARG:HD3	1.98	0.46
1:B:1450:ALA:N	1:B:1613:ARG:O	2.48	0.46
1:B:2210:VAL:HB	1:B:2277:ILE:HD11	1.97	0.46
1:B:2482:GLU:HG2	1:B:2956:PRO:HB3	1.97	0.46
1:C:2543:PHE:HA	1:C:2624:GLN:HE22	1.81	0.46
1:C:2630:ASP:HB3	1:C:2633:VAL:HG23	1.97	0.46
1:C:2686:MET:HE1	1:C:2935:LYS:HZ2	1.79	0.46
1:C:2961:LEU:HD22	1:C:2976:TRP:CD1	2.50	0.46
1:D:534:ASP:O	1:D:538:GLU:HG3	2.16	0.46
1:D:966:PRO:O	1:D:970:ILE:N	2.48	0.46
1:D:1699:ARG:HG3	1:D:1730:GLU:HB3	1.97	0.46
1:E:575:HIS:CD2	1:E:644:LEU:HD22	2.49	0.46
1:E:996:LEU:HA	1:E:1010:LEU:HA	1.98	0.46
1:E:1455:VAL:HB	1:E:1480:ARG:HH12	1.80	0.46
1:E:2096:VAL:HG13	1:E:2097:ALA:H	1.80	0.46
1:E:2252:VAL:HG13	1:E:2255:ARG:HH21	1.81	0.46
1:E:2452:ASP:CG	1:E:2453:LEU:H	2.24	0.46
1:E:2884:ASP:HA	1:E:2916:ARG:NH1	2.30	0.46
1:F:1037:ASP:CA	1:F:1038:ALA:CB	2.87	0.46
1:F:2482:GLU:HG2	1:F:2956:PRO:HB3	1.97	0.46
1:F:2848:GLY:HA2	1:A:2728:GLY:HA2	1.97	0.46
1:A:518:ASP:HA	1:A:543:GLY:O	2.15	0.46
1:B:2961:LEU:HD22	1:B:2976:TRP:CD1	2.50	0.46
1:C:518:ASP:HA	1:C:543:GLY:O	2.15	0.46
1:C:602:ARG:NH2	1:C:641:ASP:OD1	2.27	0.46
1:C:647:THR:HG22	1:C:901:ILE:HD11	1.96	0.46
1:C:936:ARG:O	1:C:941:ARG:N	2.44	0.46
1:C:940:ARG:CG	1:C:940:ARG:O	2.60	0.46
1:C:2249:MET:O	1:C:2250:SER:OG	2.28	0.46
1:C:2352:ILE:HG12	1:C:2412:ALA:HB1	1.96	0.46
1:D:518:ASP:HA	1:D:543:GLY:O	2.15	0.46
1:D:656:THR:HG1	1:D:880:HIS:CE1	2.29	0.46
1:D:1237:ARG:CZ	1:E:95:PRO:HB2	2.46	0.46
1:D:2612:PRO:HD2	1:C:2603:ARG:HH12	1.81	0.46
1:D:2884:ASP:HA	1:D:2916:ARG:NH1	2.29	0.46
1:E:406:THR:OG1	1:E:418:GLU:OE1	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2352:ILE:HG12	1:E:2412:ALA:HB1	1.96	0.46
1:F:2543:PHE:HA	1:F:2624:GLN:HE22	1.81	0.46
1:A:976:TRP:O	1:A:976:TRP:CG	2.68	0.46
1:A:1094:THR:O	1:A:1288:PRO:HG2	2.16	0.46
1:A:1237:ARG:CZ	1:B:95:PRO:HB2	2.46	0.46
1:A:1590:VAL:HG11	1:A:1671:TRP:CE2	2.50	0.46
1:A:2352:ILE:HG12	1:A:2412:ALA:HB1	1.96	0.46
1:B:518:ASP:HA	1:B:543:GLY:O	2.15	0.46
1:B:808:ALA:HB3	1:B:811:ASP:HB2	1.96	0.46
1:B:976:TRP:CG	1:B:976:TRP:O	2.68	0.46
1:B:2630:ASP:HB3	1:B:2633:VAL:HG23	1.97	0.46
1:B:2770:LEU:HB3	1:B:2815:GLN:HB3	1.97	0.46
1:C:684:MET:HG3	1:C:895:THR:HA	1.98	0.46
1:C:1590:VAL:HG11	1:C:1671:TRP:CE2	2.50	0.46
1:C:2361:VAL:HG21	1:C:2401:ILE:HD11	1.98	0.46
1:C:2452:ASP:CG	1:C:2453:LEU:N	2.73	0.46
1:D:1094:THR:O	1:D:1288:PRO:HG2	2.15	0.46
1:D:1319:ASP:HB2	1:D:1342:ARG:NH1	2.31	0.46
1:D:2361:VAL:HG21	1:D:2401:ILE:HD11	1.98	0.46
1:D:2452:ASP:CG	1:D:2453:LEU:H	2.24	0.46
1:E:1072:TRP:CD1	1:E:1097:VAL:HG22	2.51	0.46
1:E:1325:LEU:HD11	1:E:1343:LEU:HD22	1.98	0.46
1:E:2630:ASP:HB3	1:E:2633:VAL:HG23	1.97	0.46
1:E:3001:HIS:CE1	1:B:2724:GLN:HG2	2.51	0.46
1:F:167:ALA:HB3	1:F:178:LEU:HD21	1.98	0.46
1:F:315:VAL:C	1:F:317:LEU:H	2.22	0.46
1:F:406:THR:OG1	1:F:418:GLU:OE1	2.34	0.46
1:F:768:LYS:HA	1:F:775:LEU:HD11	1.97	0.46
1:F:803:GLU:OE1	1:F:2431:THR:CG2	2.62	0.46
1:F:1325:LEU:HD11	1:F:1343:LEU:HD22	1.98	0.46
1:F:2461:VAL:HG21	1:F:2751:VAL:HG13	1.97	0.46
1:F:2686:MET:HE1	1:F:2935:LYS:HZ2	1.78	0.46
1:F:2961:LEU:HD22	1:F:2976:TRP:CD1	2.51	0.46
1:F:3001:HIS:CE1	1:A:2724:GLN:HG2	2.51	0.46
1:A:602:ARG:NH2	1:A:641:ASP:OD1	2.27	0.46
1:A:768:LYS:HA	1:A:775:LEU:HD11	1.98	0.46
1:B:768:LYS:HA	1:B:775:LEU:HD11	1.98	0.46
1:B:799:PHE:CZ	1:B:2433:ARG:CG	2.99	0.46
1:C:606:ASN:HD22	1:C:606:ASN:H	1.63	0.46
1:C:768:LYS:HA	1:C:775:LEU:HD11	1.97	0.46
1:D:606:ASN:H	1:D:606:ASN:HD22	1.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:768:LYS:HA	1:D:775:LEU:HD11	1.98	0.46
1:D:1457:GLU:OE2	1:D:1614:TYR:OH	2.30	0.46
1:D:2070:LEU:O	1:D:2074:GLU:HG3	2.16	0.46
1:D:2252:VAL:HG13	1:D:2255:ARG:HH21	1.80	0.46
1:D:2603:ARG:HH12	1:C:2612:PRO:HD2	1.81	0.46
1:D:2790:MET:SD	1:D:2800:PHE:HB2	2.56	0.46
1:D:2946:LEU:HD22	1:D:2994:VAL:HG23	1.98	0.46
1:E:518:ASP:HA	1:E:543:GLY:O	2.15	0.46
1:E:540:ASN:ND2	1:E:544:ILE:HG13	2.30	0.46
1:E:793:ARG:HH12	1:E:2523:GLU:CD	2.24	0.46
1:E:2769:ASP:OD1	1:E:2770:LEU:N	2.49	0.46
1:E:2790:MET:SD	1:E:2800:PHE:HB2	2.56	0.46
1:F:205:PRO:CD	1:F:289:PRO:HB3	2.46	0.46
1:F:516:PRO:HA	1:F:962:MET:SD	2.56	0.46
1:F:2773:GLU:HA	1:F:2776:ILE:HG22	1.97	0.46
1:F:2978:ARG:NH1	1:F:2979:GLU:OE2	2.49	0.46
1:A:966:PRO:O	1:A:970:ILE:N	2.48	0.46
1:B:94:ARG:HG3	1:B:95:PRO:HD3	1.98	0.46
1:B:745:THR:HG22	1:B:747:LEU:H	1.80	0.46
1:B:1072:TRP:CD1	1:B:1097:VAL:HG22	2.51	0.46
1:C:778:THR:HG21	1:C:854:GLY:HA3	1.97	0.46
1:C:1072:TRP:CD1	1:C:1097:VAL:HG22	2.51	0.46
1:C:1346:PRO:HG2	1:C:1699:ARG:HD3	1.97	0.46
1:D:406:THR:OG1	1:D:418:GLU:OE1	2.34	0.46
1:D:511:ARG:CB	1:D:540:ASN:HB2	2.46	0.46
1:D:544:ILE:C	1:D:546:HIS:H	2.22	0.46
1:D:778:THR:HG21	1:D:854:GLY:HA3	1.97	0.46
1:D:2961:LEU:HD22	1:D:2976:TRP:CD1	2.51	0.46
1:E:641:ASP:OD1	1:E:641:ASP:N	2.47	0.46
1:E:2210:VAL:HB	1:E:2277:ILE:HD11	1.96	0.46
1:E:2361:VAL:HG21	1:E:2401:ILE:HD11	1.98	0.46
1:E:2785:ALA:HB1	1:E:2809:LEU:HG	1.97	0.46
1:E:3065:PRO:O	1:E:3069:GLN:N	2.43	0.46
1:F:745:THR:HG22	1:F:747:LEU:H	1.80	0.46
1:F:961:ARG:NE	1:F:1196:GLY:N	2.61	0.46
1:F:1037:ASP:CB	1:F:1042:MET:N	2.79	0.46
1:A:534:ASP:O	1:A:538:GLU:HG3	2.16	0.46
1:A:793:ARG:HH12	1:A:2523:GLU:CD	2.24	0.46
1:A:1346:PRO:HG2	1:A:1699:ARG:HD3	1.98	0.46
1:A:1619:VAL:HA	1:A:1620:PRO:HD2	1.80	0.46
1:A:2610:ARG:NH1	1:A:2700:LEU:HD21	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:205:PRO:CD	1:B:289:PRO:HB3	2.46	0.46
1:B:540:ASN:ND2	1:B:544:ILE:HG13	2.30	0.46
1:B:670:GLY:HA3	1:B:899:ALA:HB2	1.96	0.46
1:C:111:GLU:HB2	1:C:112:PRO:HD3	1.98	0.46
1:C:222:LEU:HD21	1:C:236:VAL:HA	1.97	0.46
1:C:782:ARG:HD3	1:C:853:LEU:HD22	1.97	0.46
1:C:2452:ASP:CG	1:C:2453:LEU:H	2.24	0.46
1:C:2482:GLU:HG2	1:C:2956:PRO:HB3	1.97	0.46
1:C:2610:ARG:NH1	1:C:2700:LEU:HD21	2.31	0.46
1:C:2648:ALA:HA	1:C:2718:VAL:HG13	1.96	0.46
1:C:3080:ARG:CG	1:C:3080:ARG:NH1	2.72	0.46
1:D:540:ASN:ND2	1:D:544:ILE:HG13	2.30	0.46
1:D:1072:TRP:CD1	1:D:1097:VAL:HG22	2.51	0.46
1:D:3001:HIS:CE1	1:C:2724:GLN:HG2	2.51	0.46
1:E:205:PRO:CD	1:E:289:PRO:HB3	2.46	0.46
1:E:315:VAL:C	1:E:317:LEU:H	2.22	0.46
1:E:1695:LEU:HD23	1:F:257:ARG:NH1	2.23	0.46
1:E:2603:ARG:HH12	1:B:2612:PRO:HD2	1.81	0.46
1:E:2612:PRO:HD2	1:B:2603:ARG:HH12	1.81	0.46
1:F:365:ALA:HB3	1:F:366:PRO:HD3	1.96	0.46
1:F:365:ALA:O	1:F:369:ARG:N	2.42	0.46
1:F:374:GLY:C	1:F:375:ILE:HG13	2.41	0.46
1:F:606:ASN:H	1:F:606:ASN:HD22	1.62	0.46
1:F:799:PHE:CZ	1:F:2433:ARG:CG	2.99	0.46
1:F:1346:PRO:HG2	1:F:1699:ARG:HD3	1.98	0.46
1:F:2557:LEU:CG	1:A:2702:GLY:HA3	2.45	0.46
1:F:2790:MET:SD	1:F:2800:PHE:HB2	2.56	0.46
1:A:84:GLU:HB2	1:A:85:PRO:HD3	1.98	0.46
1:A:1325:LEU:HD11	1:A:1343:LEU:HD22	1.98	0.46
1:A:1508:ILE:HB	1:A:1562:ARG:HD3	1.97	0.46
1:A:2212:TRP:HA	1:A:2229:LYS:HB3	1.98	0.46
1:A:2252:VAL:HG13	1:A:2255:ARG:HH21	1.80	0.46
1:A:2610:ARG:NH1	1:A:2700:LEU:HD11	2.25	0.46
1:A:2790:MET:SD	1:A:2800:PHE:HB2	2.56	0.46
1:A:2978:ARG:NH1	1:A:2979:GLU:OE2	2.49	0.46
1:B:207:MET:HG3	1:B:292:VAL:HB	1.98	0.46
1:B:931:VAL:HG13	1:B:934:LEU:N	2.21	0.46
1:B:1319:ASP:HB2	1:B:1342:ARG:NH1	2.31	0.46
1:B:2610:ARG:NH1	1:B:2700:LEU:HD21	2.31	0.46
1:B:2978:ARG:NH1	1:B:2979:GLU:OE2	2.49	0.46
1:C:207:MET:HG3	1:C:292:VAL:HB	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:277:LEU:HD22	1:C:676:GLY:O	2.16	0.46
1:C:1462:ALA:HB2	1:C:1468:TYR:HE1	1.81	0.46
1:C:1619:VAL:HA	1:C:1620:PRO:HD2	1.80	0.46
1:C:2762:VAL:HG22	1:C:2822:LEU:HB2	1.96	0.46
1:C:2800:PHE:CE1	1:C:2812:LEU:HD22	2.50	0.46
1:C:2845:PHE:HD2	1:C:2860:ALA:HA	1.81	0.46
1:C:2946:LEU:HD22	1:C:2994:VAL:HG23	1.98	0.46
1:D:745:THR:HG22	1:D:747:LEU:H	1.80	0.46
1:D:1455:VAL:HB	1:D:1480:ARG:HH12	1.80	0.46
1:D:2630:ASP:HB3	1:D:2633:VAL:HG23	1.97	0.46
1:D:2891:LYS:HZ2	1:D:2903:GLU:CG	2.29	0.46
1:E:1094:THR:O	1:E:1288:PRO:HG2	2.15	0.46
1:E:1237:ARG:CZ	1:F:95:PRO:HB2	2.46	0.46
1:E:2482:GLU:HG2	1:E:2956:PRO:HB3	1.97	0.46
1:E:2737:VAL:HG12	1:B:2716:ASN:OD1	2.16	0.46
1:E:2773:GLU:HA	1:E:2776:ILE:HG22	1.97	0.46
1:F:2252:VAL:HG13	1:F:2255:ARG:HH21	1.80	0.46
1:F:2614:LYS:HG3	1:A:2583:PHE:HB2	1.97	0.46
1:A:111:GLU:HB2	1:A:112:PRO:HD3	1.98	0.46
1:A:1087:PHE:CE1	1:B:198:ILE:HG12	2.51	0.46
1:A:2252:VAL:HG22	1:A:2255:ARG:NH2	2.30	0.46
1:A:2619:ARG:HH12	1:A:2779:GLY:HA2	1.81	0.46
1:A:2891:LYS:HG3	1:A:2924:ILE:HD13	1.98	0.46
1:B:277:LEU:HD22	1:B:676:GLY:O	2.16	0.46
1:B:365:ALA:HB3	1:B:366:PRO:HD3	1.96	0.46
1:B:606:ASN:HD22	1:B:606:ASN:H	1.63	0.46
1:B:868:ARG:HD3	1:B:872:ARG:HH12	1.81	0.46
1:B:1094:THR:O	1:B:1288:PRO:HG2	2.16	0.46
1:C:70:SER:HG	1:C:142:ARG:NH2	2.13	0.46
1:C:406:THR:OG1	1:C:418:GLU:OE1	2.34	0.46
1:C:540:ASN:ND2	1:C:544:ILE:HG13	2.30	0.46
1:C:966:PRO:O	1:C:970:ILE:N	2.48	0.46
1:C:1702:GLU:OE1	1:C:1712:ALA:N	2.49	0.46
1:C:2785:ALA:HB1	1:C:2809:LEU:HG	1.97	0.46
1:C:2891:LYS:HZ2	1:C:2903:GLU:HB3	1.79	0.46
1:D:575:HIS:CD2	1:D:644:LEU:HD22	2.49	0.46
1:D:1346:PRO:HG2	1:D:1699:ARG:HD3	1.98	0.46
1:D:2785:ALA:HB1	1:D:2809:LEU:HG	1.97	0.46
1:E:374:GLY:C	1:E:375:ILE:HG13	2.41	0.46
1:E:936:ARG:O	1:E:941:ARG:N	2.45	0.46
1:E:1508:ILE:HB	1:E:1562:ARG:HD3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2728:GLY:HA2	1:B:2848:GLY:HA2	1.97	0.46
1:F:2096:VAL:HG13	1:F:2097:ALA:H	1.80	0.46
1:A:205:PRO:CD	1:A:289:PRO:HB3	2.46	0.46
1:A:656:THR:HG1	1:A:880:HIS:CE1	2.31	0.46
1:A:2297:ARG:HH22	1:A:2391:LYS:HZ3	1.64	0.46
1:A:2961:LEU:HD22	1:A:2976:TRP:CD1	2.51	0.46
1:B:167:ALA:HB3	1:B:178:LEU:HD21	1.98	0.46
1:B:2672:TRP:CD1	1:B:2831:MET:HG2	2.51	0.46
1:B:2790:MET:SD	1:B:2800:PHE:HB2	2.56	0.46
1:B:2845:PHE:HD2	1:B:2860:ALA:HA	1.81	0.46
1:B:2891:LYS:HG3	1:B:2924:ILE:HD13	1.98	0.46
1:C:784:GLU:OE2	1:C:816:LEU:HD21	2.16	0.46
1:C:1457:GLU:OE2	1:C:1614:TYR:OH	2.30	0.46
1:C:2790:MET:SD	1:C:2800:PHE:HB2	2.56	0.46
1:D:544:ILE:O	1:D:546:HIS:N	2.41	0.45
1:D:2543:PHE:HA	1:D:2624:GLN:HE22	1.81	0.45
1:D:2978:ARG:NH1	1:D:2979:GLU:OE2	2.49	0.45
1:D:3080:ARG:CG	1:D:3080:ARG:NH1	2.72	0.45
1:E:84:GLU:HB2	1:E:85:PRO:HD3	1.98	0.45
1:E:868:ARG:HD3	1:E:872:ARG:HH12	1.81	0.45
1:E:2000:LEU:HD12	1:A:2000:LEU:HD12	1.96	0.45
1:E:2376:LEU:HD22	1:E:2392:VAL:HG21	1.97	0.45
1:E:2724:GLN:HG2	1:B:3001:HIS:CE1	2.51	0.45
1:E:2891:LYS:HG3	1:E:2924:ILE:HD13	1.99	0.45
1:E:2978:ARG:NH1	1:E:2979:GLU:OE2	2.49	0.45
1:F:277:LEU:HD22	1:F:676:GLY:O	2.16	0.45
1:F:544:ILE:O	1:F:546:HIS:N	2.40	0.45
1:F:778:THR:HG21	1:F:854:GLY:HA3	1.97	0.45
1:F:959:ALA:CB	1:F:1127:GLU:C	2.89	0.45
1:F:1094:THR:O	1:F:1288:PRO:HG2	2.15	0.45
1:F:2086:SER:HA	1:F:2089:PHE:CG	2.51	0.45
1:F:2234:PRO:HB2	1:F:2287:LEU:HD13	1.98	0.45
1:F:2583:PHE:HB2	1:A:2614:LYS:HG3	1.97	0.45
1:F:2612:PRO:HD2	1:A:2603:ARG:HH12	1.81	0.45
1:F:2728:GLY:HA2	1:A:2848:GLY:HA2	1.97	0.45
1:F:2891:LYS:HG3	1:F:2924:ILE:HD13	1.99	0.45
1:F:2946:LEU:HD22	1:F:2994:VAL:HG23	1.98	0.45
1:A:95:PRO:HB2	1:C:1237:ARG:CZ	2.45	0.45
1:A:406:THR:OG1	1:A:418:GLU:OE1	2.34	0.45
1:A:1483:LYS:O	1:A:1487:ILE:HG23	2.17	0.45
1:A:1612:GLY:N	1:A:1623:PHE:O	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2361:VAL:HG21	1:A:2401:ILE:HD11	1.98	0.45
1:A:2769:ASP:OD1	1:A:2770:LEU:N	2.49	0.45
1:B:406:THR:OG1	1:B:418:GLU:OE1	2.34	0.45
1:B:585:HIS:HD2	1:B:586:SER:H	1.62	0.45
1:B:683:GLY:CA	1:B:700:ASN:HB2	2.44	0.45
1:B:1325:LEU:HD11	1:B:1343:LEU:HD22	1.98	0.45
1:B:2946:LEU:HD22	1:B:2994:VAL:HG23	1.98	0.45
1:C:167:ALA:HB3	1:C:178:LEU:HD21	1.98	0.45
1:C:1304:LYS:O	1:C:1307:ASP:HB2	2.16	0.45
1:C:2681:THR:O	1:C:2764:ALA:HA	2.15	0.45
1:C:2978:ARG:NH1	1:C:2979:GLU:OE2	2.49	0.45
1:D:2234:PRO:HB2	1:D:2287:LEU:HD13	1.98	0.45
1:D:2246:ALA:N	1:D:2255:ARG:NH1	2.64	0.45
1:D:2619:ARG:NH1	1:D:2779:GLY:HA2	2.31	0.45
1:E:167:ALA:HB3	1:E:178:LEU:HD21	1.98	0.45
1:E:222:LEU:HD21	1:E:236:VAL:HA	1.97	0.45
1:E:534:ASP:O	1:E:538:GLU:HG3	2.16	0.45
1:E:799:PHE:CZ	1:E:2433:ARG:CG	2.99	0.45
1:E:2716:ASN:OD1	1:B:2737:VAL:HG12	2.16	0.45
1:F:94:ARG:HG3	1:F:95:PRO:HD3	1.98	0.45
1:F:534:ASP:O	1:F:538:GLU:HG3	2.16	0.45
1:F:684:MET:HG3	1:F:895:THR:HA	1.98	0.45
1:F:793:ARG:HH12	1:F:2523:GLU:CD	2.24	0.45
1:A:374:GLY:C	1:A:375:ILE:HG13	2.41	0.45
1:A:1702:GLU:OE1	1:A:1712:ALA:N	2.49	0.45
1:A:2086:SER:HA	1:A:2089:PHE:CG	2.51	0.45
1:A:2452:ASP:CG	1:A:2453:LEU:H	2.23	0.45
1:B:374:GLY:C	1:B:375:ILE:HG13	2.41	0.45
1:B:1699:ARG:HG3	1:B:1730:GLU:HB3	1.97	0.45
1:B:2086:SER:HA	1:B:2089:PHE:CG	2.52	0.45
1:B:2889:ILE:HD11	1:B:2922:LEU:HD22	1.98	0.45
1:C:205:PRO:CD	1:C:289:PRO:HB3	2.46	0.45
1:C:683:GLY:CA	1:C:700:ASN:HB2	2.45	0.45
1:C:746:TYR:HB2	1:C:833:ALA:HB1	1.99	0.45
1:C:1171:PRO:HA	1:C:1191:ARG:HG2	1.99	0.45
1:C:2619:ARG:NH1	1:C:2779:GLY:HA2	2.31	0.45
1:D:1634:ARG:NH1	1:D:1639:ALA:H	2.11	0.45
1:D:2096:VAL:HG13	1:D:2097:ALA:H	1.80	0.45
1:E:94:ARG:HG3	1:E:95:PRO:HD3	1.97	0.45
1:E:2845:PHE:HD2	1:E:2860:ALA:HA	1.82	0.45
1:F:88:SER:HG	1:F:311:TRP:CD1	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:868:ARG:HD3	1:F:872:ARG:HH12	1.81	0.45
1:F:1021:LEU:HA	1:F:1034:GLU:HA	1.98	0.45
1:F:1038:ALA:HA	1:F:1126:ILE:HA	1.98	0.45
1:F:1553:ALA:O	1:F:1557:GLU:HG2	2.17	0.45
1:F:2070:LEU:O	1:F:2074:GLU:HG3	2.16	0.45
1:A:277:LEU:HD22	1:A:676:GLY:O	2.16	0.45
1:A:381:ARG:O	1:A:384:GLN:HG2	2.17	0.45
1:A:684:MET:HG3	1:A:895:THR:HA	1.98	0.45
1:A:1319:ASP:HB2	1:A:1342:ARG:NH1	2.31	0.45
1:A:2773:GLU:HA	1:A:2776:ILE:HG22	1.97	0.45
1:B:111:GLU:HB2	1:B:112:PRO:HD3	1.98	0.45
1:B:1304:LYS:O	1:B:1307:ASP:HB2	2.16	0.45
1:B:1519:VAL:HG13	1:B:1530:LEU:HD23	1.99	0.45
1:B:2234:PRO:HB2	1:B:2287:LEU:HD13	1.98	0.45
1:B:2543:PHE:HA	1:B:2624:GLN:HE22	1.81	0.45
1:B:2610:ARG:NH1	1:B:2700:LEU:HD11	2.25	0.45
1:C:84:GLU:HB2	1:C:85:PRO:HD3	1.98	0.45
1:C:534:ASP:O	1:C:538:GLU:HG3	2.16	0.45
1:C:1352:PHE:HA	1:C:1353:PRO:HD3	1.72	0.45
1:C:2234:PRO:HB2	1:C:2287:LEU:HD13	1.98	0.45
1:C:2891:LYS:HZ2	1:C:2903:GLU:CG	2.29	0.45
1:D:784:GLU:OE2	1:D:816:LEU:HD21	2.16	0.45
1:D:799:PHE:CZ	1:D:2433:ARG:CG	2.99	0.45
1:D:836:VAL:HG12	1:D:837:VAL:N	2.29	0.45
1:D:2769:ASP:OD1	1:D:2770:LEU:N	2.49	0.45
1:E:222:LEU:HD13	1:E:248:ILE:HD12	1.99	0.45
1:E:784:GLU:OE2	1:E:816:LEU:HD21	2.16	0.45
1:E:1087:PHE:CE1	1:F:198:ILE:HG12	2.50	0.45
1:E:1346:PRO:HG2	1:E:1699:ARG:HD3	1.98	0.45
1:E:2800:PHE:CE1	1:E:2812:LEU:HD22	2.50	0.45
1:F:1072:TRP:CD1	1:F:1097:VAL:HG22	2.51	0.45
1:F:1450:ALA:N	1:F:1613:ARG:O	2.47	0.45
1:F:1519:VAL:HG13	1:F:1530:LEU:HD23	1.98	0.45
1:F:1702:GLU:OE1	1:F:1712:ALA:N	2.49	0.45
1:F:2246:ALA:N	1:F:2255:ARG:NH1	2.64	0.45
1:F:2452:ASP:HA	1:F:3017:ALA:HA	1.99	0.45
1:F:2619:ARG:HH12	1:F:2779:GLY:HA2	1.81	0.45
1:F:2845:PHE:HD2	1:F:2860:ALA:HA	1.81	0.45
1:F:2889:ILE:HD11	1:F:2922:LEU:HD22	1.98	0.45
1:A:1284:GLY:HA2	1:A:1343:LEU:HD11	1.99	0.45
1:B:47:ALA:O	1:B:353:ASP:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:222:LEU:HD21	1:B:236:VAL:HA	1.97	0.45
1:B:793:ARG:HH12	1:B:2523:GLU:CD	2.24	0.45
1:B:1553:ALA:O	1:B:1557:GLU:HG2	2.17	0.45
1:B:2361:VAL:HG21	1:B:2401:ILE:HD11	1.98	0.45
1:B:2452:ASP:HA	1:B:3017:ALA:HA	1.99	0.45
1:C:94:ARG:HG3	1:C:95:PRO:HD3	1.98	0.45
1:C:195:ARG:NH1	1:C:198:ILE:HD12	2.31	0.45
1:C:1488:VAL:HB	1:C:1579:VAL:HG22	1.99	0.45
1:C:2246:ALA:N	1:C:2255:ARG:NH1	2.64	0.45
1:D:684:MET:HG3	1:D:895:THR:HA	1.98	0.45
1:D:747:LEU:HD22	1:D:751:ARG:CZ	2.47	0.45
1:D:1612:GLY:N	1:D:1623:PHE:O	2.48	0.45
1:D:1702:GLU:OE1	1:D:1712:ALA:N	2.49	0.45
1:D:2472:TYR:CZ	1:D:2930:LEU:HD22	2.52	0.45
1:D:2557:LEU:CG	1:C:2702:GLY:HA3	2.45	0.45
1:D:2716:ASN:OD1	1:C:2737:VAL:HG12	2.16	0.45
1:D:2770:LEU:HB3	1:D:2815:GLN:HB3	1.97	0.45
1:E:277:LEU:HD22	1:E:676:GLY:O	2.16	0.45
1:E:745:THR:HG22	1:E:747:LEU:H	1.80	0.45
1:E:1291:LYS:HZ2	1:E:1346:PRO:N	2.14	0.45
1:E:1553:ALA:O	1:E:1557:GLU:HG2	2.17	0.45
1:E:1634:ARG:NH1	1:E:1639:ALA:N	2.65	0.45
1:E:2086:SER:HA	1:E:2089:PHE:CG	2.52	0.45
1:E:2614:LYS:HG3	1:B:2583:PHE:HB2	1.97	0.45
1:E:2770:LEU:HB3	1:E:2815:GLN:HB3	1.97	0.45
1:E:2891:LYS:HZ2	1:E:2903:GLU:CG	2.29	0.45
1:F:84:GLU:HB2	1:F:85:PRO:HD3	1.98	0.45
1:F:784:GLU:OE2	1:F:816:LEU:HD21	2.16	0.45
1:F:1304:LYS:O	1:F:1307:ASP:HB2	2.16	0.45
1:F:1319:ASP:HB2	1:F:1342:ARG:NH1	2.31	0.45
1:A:94:ARG:HG3	1:A:95:PRO:HD3	1.98	0.45
1:A:996:LEU:HA	1:A:1010:LEU:HA	1.97	0.45
1:A:1304:LYS:O	1:A:1307:ASP:HB2	2.16	0.45
1:A:1553:ALA:O	1:A:1557:GLU:HG2	2.17	0.45
1:A:2946:LEU:HD22	1:A:2994:VAL:HG23	1.98	0.45
1:B:195:ARG:NH1	1:B:198:ILE:HD12	2.31	0.45
1:B:381:ARG:O	1:B:384:GLN:HG2	2.17	0.45
1:B:684:MET:HG3	1:B:895:THR:HA	1.98	0.45
1:B:1285:LYS:HB3	1:B:1286:PRO:HD2	1.98	0.45
1:B:2246:ALA:N	1:B:2255:ARG:NH1	2.64	0.45
1:B:2472:TYR:CZ	1:B:2930:LEU:HD22	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2619:ARG:HH12	1:B:2779:GLY:HA2	1.81	0.45
1:C:222:LEU:HD13	1:C:248:ILE:HD12	1.99	0.45
1:C:351:ILE:HB	1:C:375:ILE:HG12	1.99	0.45
1:C:763:SER:HB3	1:C:766:ASP:HB2	1.99	0.45
1:C:1319:ASP:HB2	1:C:1342:ARG:NH1	2.31	0.45
1:C:2058:ASP:OD1	1:C:2058:ASP:N	2.46	0.45
1:C:2096:VAL:HG23	1:C:2097:ALA:H	1.80	0.45
1:C:2619:ARG:HH12	1:C:2779:GLY:HA2	1.81	0.45
1:C:2989:LEU:HD12	1:C:2989:LEU:HA	1.77	0.45
1:D:550:LYS:HD3	1:D:577:GLU:OE2	2.17	0.45
1:D:585:HIS:CB	1:D:694:ASP:HB2	2.47	0.45
1:D:793:ARG:HH12	1:D:2523:GLU:CD	2.24	0.45
1:D:1284:GLY:HA2	1:D:1343:LEU:HD11	1.99	0.45
1:D:1304:LYS:O	1:D:1307:ASP:HB2	2.16	0.45
1:D:1462:ALA:HB2	1:D:1468:TYR:HE1	1.81	0.45
1:D:1553:ALA:O	1:D:1557:GLU:HG2	2.17	0.45
1:D:2137:GLU:O	1:D:2163:THR:N	2.30	0.45
1:D:2800:PHE:CE1	1:D:2812:LEU:HD22	2.50	0.45
1:D:2845:PHE:HD2	1:D:2860:ALA:HA	1.82	0.45
1:E:1284:GLY:HA2	1:E:1343:LEU:HD11	1.99	0.45
1:E:1319:ASP:HB2	1:E:1342:ARG:NH1	2.31	0.45
1:E:2889:ILE:HD11	1:E:2922:LEU:HD22	1.98	0.45
1:E:2946:LEU:HD22	1:E:2994:VAL:HG23	1.98	0.45
1:F:207:MET:HG3	1:F:292:VAL:HB	1.98	0.45
1:F:1226:ARG:CG	1:F:1313:VAL:HG12	2.47	0.45
1:F:2212:TRP:HA	1:F:2229:LYS:HB3	1.98	0.45
1:F:2716:ASN:OD1	1:A:2737:VAL:HG12	2.16	0.45
1:A:47:ALA:O	1:A:353:ASP:HA	2.17	0.45
1:A:167:ALA:HB3	1:A:178:LEU:HD21	1.98	0.45
1:A:1072:TRP:CD1	1:A:1097:VAL:HG22	2.51	0.45
1:A:2070:LEU:O	1:A:2074:GLU:HG3	2.16	0.45
1:A:2210:VAL:HB	1:A:2277:ILE:HD11	1.96	0.45
1:A:2879:LEU:HD13	1:A:3009:VAL:HG11	1.98	0.45
1:A:3080:ARG:CG	1:A:3080:ARG:NH1	2.72	0.45
1:B:550:LYS:HD3	1:B:577:GLU:OE2	2.17	0.45
1:B:2092:THR:O	1:B:2092:THR:CG2	2.64	0.45
1:B:2773:GLU:HA	1:B:2776:ILE:HG22	1.97	0.45
1:C:393:VAL:HG12	1:C:394:PRO:N	2.32	0.45
1:C:511:ARG:CB	1:C:540:ASN:HB2	2.46	0.45
1:C:585:HIS:CB	1:C:694:ASP:HB2	2.47	0.45
1:C:793:ARG:HH12	1:C:2523:GLU:CD	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:799:PHE:CZ	1:C:2433:ARG:CG	2.99	0.45
1:C:868:ARG:HD3	1:C:872:ARG:HH12	1.81	0.45
1:D:868:ARG:HD3	1:D:872:ARG:HH12	1.81	0.45
1:D:1226:ARG:CG	1:D:1313:VAL:HG12	2.47	0.45
1:D:1325:LEU:HD11	1:D:1343:LEU:HD22	1.98	0.45
1:E:940:ARG:CG	1:E:940:ARG:O	2.60	0.45
1:E:1171:PRO:HA	1:E:1191:ARG:HG2	1.99	0.45
1:E:2212:TRP:HA	1:E:2229:LYS:HB3	1.98	0.45
1:E:2610:ARG:NH1	1:E:2700:LEU:HD21	2.31	0.45
1:E:2619:ARG:NH1	1:E:2779:GLY:HA2	2.31	0.45
1:E:2702:GLY:HA3	1:B:2557:LEU:CG	2.46	0.45
1:E:3080:ARG:CG	1:E:3080:ARG:NH1	2.72	0.45
1:F:996:LEU:HA	1:F:1010:LEU:HA	1.97	0.45
1:F:2300:PHE:CZ	1:F:2398:LEU:HB3	2.52	0.45
1:F:2603:ARG:HH12	1:A:2612:PRO:HD2	1.81	0.45
1:F:2845:PHE:CD2	1:F:2860:ALA:HA	2.52	0.45
1:F:2891:LYS:HZ1	1:F:2904:THR:N	2.14	0.45
1:A:585:HIS:CB	1:A:694:ASP:HB2	2.47	0.45
1:A:647:THR:OG1	2:A:4000:FMN:O3P	2.27	0.45
1:A:799:PHE:CZ	1:A:2433:ARG:CG	2.99	0.45
1:A:2246:ALA:N	1:A:2255:ARG:NH1	2.64	0.45
1:A:2543:PHE:HA	1:A:2624:GLN:HE22	1.81	0.45
1:A:2619:ARG:NH1	1:A:2779:GLY:HA2	2.31	0.45
1:A:2785:ALA:HB1	1:A:2809:LEU:HG	1.97	0.45
1:A:2889:ILE:HD11	1:A:2922:LEU:HD22	1.98	0.45
1:B:1237:ARG:CZ	1:C:95:PRO:HB2	2.46	0.45
1:B:1462:ALA:HB2	1:B:1468:TYR:HE1	1.81	0.45
1:C:1284:GLY:HA2	1:C:1343:LEU:HD11	1.99	0.45
1:C:2070:LEU:O	1:C:2074:GLU:HG3	2.16	0.45
1:C:2672:TRP:CD1	1:C:2831:MET:HG2	2.52	0.45
1:C:2845:PHE:CD2	1:C:2860:ALA:HA	2.52	0.45
1:D:1268:GLY:HA2	1:D:1271:LEU:HD12	1.99	0.45
1:D:2482:GLU:HG2	1:D:2956:PRO:HB3	1.97	0.45
1:D:2610:ARG:NH1	1:D:2700:LEU:HD21	2.31	0.45
1:D:2724:GLN:HG2	1:C:3001:HIS:CE1	2.51	0.45
1:D:2845:PHE:CD2	1:D:2860:ALA:HA	2.52	0.45
1:E:195:ARG:NH1	1:E:198:ILE:HD12	2.31	0.45
1:E:1450:ALA:N	1:E:1613:ARG:O	2.48	0.45
1:E:2619:ARG:HH12	1:E:2779:GLY:HA2	1.81	0.45
1:E:2672:TRP:CD1	1:E:2831:MET:HG2	2.52	0.45
1:E:2989:LEU:HD12	1:E:2989:LEU:HA	1.77	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:195:ARG:NH1	1:F:198:ILE:HD12	2.31	0.45
1:F:222:LEU:HD21	1:F:236:VAL:HA	1.97	0.45
1:F:585:HIS:CB	1:F:694:ASP:HB2	2.47	0.45
1:F:966:PRO:HB3	1:F:1258:LEU:HD13	1.99	0.45
1:F:1634:ARG:NH1	1:F:1639:ALA:N	2.65	0.45
1:F:2619:ARG:NH1	1:F:2779:GLY:HA2	2.31	0.45
1:A:222:LEU:HD21	1:A:236:VAL:HA	1.97	0.45
1:A:1462:ALA:HB2	1:A:1468:TYR:HE1	1.81	0.45
1:A:2296:ASN:HB3	1:A:2299:MET:SD	2.57	0.45
1:A:2845:PHE:HD2	1:A:2860:ALA:HA	1.81	0.45
1:B:784:GLU:OE2	1:B:816:LEU:HD21	2.16	0.45
1:B:1226:ARG:CG	1:B:1313:VAL:HG12	2.47	0.45
1:B:1483:LYS:O	1:B:1487:ILE:HG23	2.17	0.45
1:B:1634:ARG:NH1	1:B:1639:ALA:N	2.65	0.45
1:B:1702:GLU:OE1	1:B:1712:ALA:N	2.49	0.45
1:B:2212:TRP:HA	1:B:2229:LYS:HB3	1.98	0.45
1:B:2879:LEU:HD13	1:B:3009:VAL:HG11	1.98	0.45
1:C:381:ARG:O	1:C:384:GLN:HG2	2.17	0.45
1:D:746:TYR:HB2	1:D:833:ALA:HB1	1.99	0.45
1:D:936:ARG:O	1:D:941:ARG:N	2.45	0.45
1:D:2619:ARG:HH12	1:D:2779:GLY:HA2	1.81	0.45
1:D:2737:VAL:HG12	1:C:2716:ASN:OD1	2.16	0.45
1:E:515:ALA:HA	1:E:516:PRO:HD3	1.84	0.45
1:E:664:LEU:HB3	1:E:701:ALA:HB1	1.99	0.45
1:E:1605:LYS:H	1:E:1658:LYS:HE2	1.82	0.45
1:E:2070:LEU:O	1:E:2074:GLU:HG3	2.16	0.45
1:E:2891:LYS:HZ2	1:E:2903:GLU:CB	2.30	0.45
1:F:47:ALA:O	1:F:353:ASP:HA	2.17	0.45
1:F:111:GLU:HB2	1:F:112:PRO:HD3	1.98	0.45
1:F:550:LYS:HD3	1:F:577:GLU:OE2	2.17	0.45
1:F:747:LEU:HD22	1:F:751:ARG:CZ	2.47	0.45
1:F:1483:LYS:O	1:F:1487:ILE:HG23	2.17	0.45
1:F:1488:VAL:HB	1:F:1579:VAL:HG22	1.99	0.45
1:F:2891:LYS:HZ2	1:F:2903:GLU:CG	2.30	0.45
1:A:1133:VAL:O	1:A:1193:ALA:N	2.42	0.45
1:A:3065:PRO:O	1:A:3069:GLN:N	2.42	0.45
1:B:393:VAL:HG12	1:B:394:PRO:N	2.32	0.45
1:B:1093:PRO:HB3	1:B:1277:HIS:CE1	2.52	0.45
1:B:2619:ARG:NH1	1:B:2779:GLY:HA2	2.31	0.45
1:B:2769:ASP:OD1	1:B:2770:LEU:N	2.49	0.45
1:C:47:ALA:O	1:C:353:ASP:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:664:LEU:HB3	1:C:701:ALA:HB1	1.99	0.45
1:C:747:LEU:HD22	1:C:751:ARG:CZ	2.47	0.45
1:C:1094:THR:O	1:C:1288:PRO:HG2	2.15	0.45
1:C:1612:GLY:N	1:C:1623:PHE:O	2.48	0.45
1:C:2300:PHE:CZ	1:C:2398:LEU:HB3	2.52	0.45
1:D:1684:ASP:HA	1:D:1687:PHE:HD2	1.82	0.45
1:D:2672:TRP:CD1	1:D:2831:MET:HG2	2.52	0.45
1:D:2889:ILE:HD11	1:D:2922:LEU:HD22	1.98	0.45
1:E:207:MET:HG3	1:E:292:VAL:HB	1.98	0.45
1:E:336:TRP:CH2	1:E:360:LEU:HD21	2.52	0.45
1:E:585:HIS:CB	1:E:694:ASP:HB2	2.47	0.45
1:E:1226:ARG:CG	1:E:1313:VAL:HG12	2.47	0.45
1:E:1483:LYS:O	1:E:1487:ILE:HG23	2.17	0.45
1:E:1702:GLU:OE1	1:E:1712:ALA:N	2.49	0.45
1:E:2246:ALA:N	1:E:2255:ARG:NH1	2.64	0.45
1:E:2296:ASN:HB3	1:E:2299:MET:SD	2.57	0.45
1:E:2297:ARG:HH22	1:E:2391:LYS:HZ3	1.65	0.45
1:F:1133:VAL:O	1:F:1193:ALA:N	2.42	0.45
1:F:2672:TRP:CD1	1:F:2831:MET:HG2	2.52	0.45
1:F:2879:LEU:HD13	1:F:3009:VAL:HG11	1.98	0.45
1:A:207:MET:HG3	1:A:292:VAL:HB	1.98	0.45
1:A:475:LEU:HA	1:A:475:LEU:HD23	1.79	0.45
1:A:1171:PRO:HA	1:A:1191:ARG:HG2	1.99	0.45
1:A:1581:PHE:HB2	1:A:1586:LEU:HD22	1.99	0.45
1:B:746:TYR:HB2	1:B:833:ALA:HB1	1.99	0.45
1:B:1612:GLY:N	1:B:1623:PHE:O	2.48	0.45
1:B:2800:PHE:CE1	1:B:2812:LEU:HD22	2.50	0.45
1:C:745:THR:OG1	1:C:834:GLU:O	2.19	0.45
1:C:1247:ASN:HA	1:C:1248:PRO:HD3	1.83	0.45
1:C:1268:GLY:HA2	1:C:1271:LEU:HD12	1.99	0.45
1:C:1634:ARG:NH1	1:C:1639:ALA:N	2.65	0.45
1:C:2086:SER:HA	1:C:2089:PHE:CG	2.51	0.45
1:C:2769:ASP:OD1	1:C:2770:LEU:N	2.49	0.45
1:D:2092:THR:O	1:D:2092:THR:CG2	2.64	0.44
1:D:2300:PHE:CZ	1:D:2398:LEU:HB3	2.52	0.44
1:E:111:GLU:HB2	1:E:112:PRO:HD3	1.98	0.44
1:E:1581:PHE:HB2	1:E:1586:LEU:HD22	1.99	0.44
1:F:2246:ALA:N	1:F:2255:ARG:HH12	2.16	0.44
1:F:2724:GLN:HG2	1:A:3001:HIS:CE1	2.51	0.44
1:A:336:TRP:CH2	1:A:360:LEU:HD21	2.52	0.44
1:A:2770:LEU:HB3	1:A:2815:GLN:HB3	1.97	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:534:ASP:O	1:B:538:GLU:HG3	2.16	0.44
1:B:2145:SER:O	1:B:2148:SER:OG	2.33	0.44
1:B:2891:LYS:HZ1	1:B:2904:THR:N	2.15	0.44
1:B:2958:ASN:HD22	1:B:2976:TRP:HE1	1.65	0.44
1:C:374:GLY:C	1:C:375:ILE:HG13	2.41	0.44
1:C:1226:ARG:CG	1:C:1313:VAL:HG12	2.47	0.44
1:C:1325:LEU:HD11	1:C:1343:LEU:HD22	1.98	0.44
1:C:1553:ALA:O	1:C:1557:GLU:HG2	2.17	0.44
1:C:1684:ASP:HA	1:C:1687:PHE:HD2	1.82	0.44
1:C:2472:TYR:CZ	1:C:2930:LEU:HD22	2.52	0.44
1:C:2555:SER:HA	1:C:2556:PRO:HD2	1.85	0.44
1:D:763:SER:HB3	1:D:766:ASP:HB2	1.99	0.44
1:D:1488:VAL:HB	1:D:1579:VAL:HG22	1.99	0.44
1:D:1519:VAL:HG13	1:D:1530:LEU:HD23	1.98	0.44
1:D:1581:PHE:HB2	1:D:1586:LEU:HD22	1.99	0.44
1:D:2058:ASP:OD1	1:D:2058:ASP:N	2.46	0.44
1:D:2086:SER:HA	1:D:2089:PHE:CG	2.52	0.44
1:D:2879:LEU:HD13	1:D:3009:VAL:HG11	1.98	0.44
1:E:393:VAL:HG12	1:E:394:PRO:N	2.32	0.44
1:E:768:LYS:HA	1:E:775:LEU:HD11	1.98	0.44
1:E:1093:PRO:HB3	1:E:1277:HIS:CE1	2.52	0.44
1:E:1304:LYS:O	1:E:1307:ASP:HB2	2.16	0.44
1:E:2092:THR:O	1:E:2092:THR:CG2	2.64	0.44
1:E:2234:PRO:HB2	1:E:2287:LEU:HD13	1.98	0.44
1:F:746:TYR:HB2	1:F:833:ALA:HB1	1.99	0.44
1:F:1171:PRO:HA	1:F:1191:ARG:HG2	1.99	0.44
1:F:1268:GLY:HA2	1:F:1271:LEU:HD12	1.99	0.44
1:F:1284:GLY:HA2	1:F:1343:LEU:HD11	1.99	0.44
1:F:1581:PHE:HB2	1:F:1586:LEU:HD22	1.99	0.44
1:F:2296:ASN:HB3	1:F:2299:MET:SD	2.57	0.44
1:F:2472:TYR:CZ	1:F:2930:LEU:HD22	2.52	0.44
1:F:2610:ARG:NH1	1:F:2700:LEU:HD21	2.31	0.44
1:F:2737:VAL:HG12	1:A:2716:ASN:OD1	2.16	0.44
1:A:195:ARG:NH1	1:A:198:ILE:HD12	2.31	0.44
1:A:540:ASN:ND2	1:A:544:ILE:HG13	2.30	0.44
1:A:664:LEU:HB3	1:A:701:ALA:HB1	1.99	0.44
1:A:1634:ARG:NH1	1:A:1639:ALA:H	2.11	0.44
1:A:2246:ALA:N	1:A:2255:ARG:HH12	2.15	0.44
1:B:763:SER:HB3	1:B:766:ASP:HB2	1.99	0.44
1:B:1133:VAL:O	1:B:1193:ALA:N	2.42	0.44
1:B:1284:GLY:HA2	1:B:1343:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2070:LEU:O	1:B:2074:GLU:HG3	2.16	0.44
1:B:2096:VAL:HG13	1:B:2097:ALA:H	1.80	0.44
1:B:2209:LEU:O	1:B:2213:VAL:HG23	2.18	0.44
1:B:2300:PHE:CZ	1:B:2398:LEU:HB3	2.52	0.44
1:C:2770:LEU:HB3	1:C:2815:GLN:HB3	1.97	0.44
1:D:2212:TRP:HA	1:D:2229:LYS:HB3	1.98	0.44
1:D:2702:GLY:HA3	1:C:2557:LEU:CG	2.46	0.44
1:D:2847:ASP:CG	1:D:2857:GLY:HA2	2.43	0.44
1:E:544:ILE:C	1:E:546:HIS:H	2.22	0.44
1:E:1519:VAL:HG13	1:E:1530:LEU:HD23	1.98	0.44
1:E:2472:TYR:CZ	1:E:2930:LEU:HD22	2.52	0.44
1:F:511:ARG:CB	1:F:540:ASN:HB2	2.46	0.44
1:F:763:SER:HB3	1:F:766:ASP:HB2	1.99	0.44
1:F:1455:VAL:HB	1:F:1480:ARG:HH12	1.80	0.44
1:F:2769:ASP:OD1	1:F:2770:LEU:N	2.49	0.44
1:A:163:LEU:HD13	1:A:181:LEU:HD23	2.00	0.44
1:A:745:THR:OG1	1:A:834:GLU:O	2.19	0.44
1:A:746:TYR:HB2	1:A:833:ALA:HB1	1.99	0.44
1:A:1226:ARG:CG	1:A:1313:VAL:HG12	2.47	0.44
1:A:2234:PRO:HB2	1:A:2287:LEU:HD13	1.98	0.44
1:A:2462:VAL:HG13	1:A:2835:VAL:HG13	2.00	0.44
1:A:2891:LYS:HZ1	1:A:2904:THR:N	2.15	0.44
1:A:2903:GLU:OE2	1:A:2995:THR:OG1	2.36	0.44
1:B:996:LEU:HA	1:B:1010:LEU:HA	1.98	0.44
1:B:1488:VAL:HB	1:B:1579:VAL:HG22	1.99	0.44
1:B:1619:VAL:HA	1:B:1620:PRO:HD2	1.80	0.44
1:B:1684:ASP:HA	1:B:1687:PHE:HD2	1.82	0.44
1:C:544:ILE:C	1:C:546:HIS:H	2.22	0.44
1:C:1483:LYS:O	1:C:1487:ILE:HG23	2.17	0.44
1:C:1519:VAL:HG13	1:C:1530:LEU:HD23	1.99	0.44
1:C:1580:PRO:O	1:C:1583:SER:OG	2.22	0.44
1:C:1605:LYS:H	1:C:1658:LYS:HE2	1.82	0.44
1:C:2212:TRP:HA	1:C:2229:LYS:HB3	1.98	0.44
1:D:1634:ARG:NH1	1:D:1639:ALA:N	2.65	0.44
1:D:2462:VAL:HG13	1:D:2835:VAL:HG13	2.00	0.44
1:D:2891:LYS:HG3	1:D:2924:ILE:HD13	1.98	0.44
1:E:163:LEU:HD13	1:E:181:LEU:HD23	2.00	0.44
1:E:1285:LYS:HB3	1:E:1286:PRO:HD2	1.99	0.44
1:E:1350:TYR:CD1	1:E:1703:ILE:HD11	2.53	0.44
1:E:1352:PHE:HA	1:E:1353:PRO:HD3	1.72	0.44
1:E:2879:LEU:HD13	1:E:3009:VAL:HG11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:782:ARG:NH1	1:F:857:VAL:HG22	2.33	0.44
1:F:1037:ASP:HB2	1:F:1041:ALA:CB	2.36	0.44
1:F:1093:PRO:HB3	1:F:1277:HIS:CE1	2.52	0.44
1:F:2958:ASN:HD22	1:F:2976:TRP:HE1	1.65	0.44
1:A:747:LEU:HD22	1:A:751:ARG:CZ	2.47	0.44
1:A:784:GLU:OE2	1:A:816:LEU:HD21	2.16	0.44
1:A:936:ARG:O	1:A:941:ARG:N	2.45	0.44
1:A:1072:TRP:HE1	1:A:1077:VAL:HG22	1.80	0.44
1:A:2092:THR:O	1:A:2092:THR:CG2	2.64	0.44
1:A:2672:TRP:CD1	1:A:2831:MET:HG2	2.52	0.44
1:B:747:LEU:HD22	1:B:751:ARG:CZ	2.47	0.44
1:B:1352:PHE:HA	1:B:1353:PRO:HD3	1.72	0.44
1:B:1581:PHE:HB2	1:B:1586:LEU:HD22	1.99	0.44
1:B:2246:ALA:N	1:B:2255:ARG:HH12	2.16	0.44
1:B:2903:GLU:OE2	1:B:2995:THR:OG1	2.36	0.44
1:C:550:LYS:HD3	1:C:577:GLU:OE2	2.17	0.44
1:C:1093:PRO:HB3	1:C:1277:HIS:CE1	2.52	0.44
1:C:2462:VAL:HG13	1:C:2835:VAL:HG13	2.00	0.44
1:D:782:ARG:NH1	1:D:857:VAL:HG22	2.33	0.44
1:D:1503:ILE:HB	1:D:1542:TYR:HB2	2.00	0.44
1:D:2014:SER:H	1:E:2591:ARG:HH12	1.66	0.44
1:D:2246:ALA:N	1:D:2255:ARG:HH12	2.16	0.44
1:E:381:ARG:O	1:E:384:GLN:HG2	2.17	0.44
1:E:412:ASP:H	1:E:1025:VAL:CG2	2.31	0.44
1:E:782:ARG:NH1	1:E:857:VAL:HG22	2.33	0.44
1:E:1462:ALA:HB2	1:E:1468:TYR:HE1	1.81	0.44
1:F:575:HIS:CD2	1:F:644:LEU:HD22	2.49	0.44
1:F:970:ILE:HG23	1:F:992:THR:HG21	2.00	0.44
1:A:222:LEU:HD13	1:A:248:ILE:HD12	1.99	0.44
1:A:1350:TYR:CD1	1:A:1703:ILE:HD11	2.53	0.44
1:A:1634:ARG:NH1	1:A:1639:ALA:N	2.65	0.44
1:A:2252:VAL:HG22	1:A:2255:ARG:HH21	1.82	0.44
1:A:2452:ASP:HA	1:A:3017:ALA:HA	1.99	0.44
1:A:2471:PRO:HA	1:A:2625:ILE:HA	2.00	0.44
1:A:2753:LYS:HD3	1:A:2753:LYS:HA	1.83	0.44
1:B:438:THR:HA	1:B:880:HIS:CE1	2.51	0.44
1:B:515:ALA:HA	1:B:516:PRO:HD3	1.84	0.44
1:B:2847:ASP:CG	1:B:2857:GLY:HA2	2.43	0.44
1:B:2891:LYS:HZ2	1:B:2903:GLU:HG2	1.83	0.44
1:C:88:SER:HB3	1:C:314:THR:OG1	2.18	0.44
1:C:336:TRP:CH2	1:C:360:LEU:HD21	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1350:TYR:CD1	1:C:1703:ILE:HD11	2.53	0.44
1:C:1503:ILE:HB	1:C:1542:TYR:HB2	2.00	0.44
1:C:1723:GLU:O	1:C:1725:SER:N	2.51	0.44
1:C:2879:LEU:HD13	1:C:3009:VAL:HG11	1.98	0.44
1:C:2889:ILE:HD11	1:C:2922:LEU:HD22	1.98	0.44
1:D:641:ASP:OD1	1:D:641:ASP:N	2.47	0.44
1:D:2471:PRO:HA	1:D:2625:ILE:HA	2.00	0.44
1:D:2580:PHE:HE1	1:D:2603:ARG:HH21	1.66	0.44
1:E:47:ALA:O	1:E:353:ASP:HA	2.17	0.44
1:E:2014:SER:H	1:F:2591:ARG:HH12	1.65	0.44
1:E:2845:PHE:CD2	1:E:2860:ALA:HA	2.52	0.44
1:F:222:LEU:HD13	1:F:248:ILE:HD12	1.99	0.44
1:F:544:ILE:C	1:F:546:HIS:H	2.22	0.44
1:F:1072:TRP:HE1	1:F:1077:VAL:HG22	1.80	0.44
1:F:1723:GLU:O	1:F:1725:SER:N	2.51	0.44
1:A:782:ARG:NH1	1:A:857:VAL:HG22	2.33	0.44
1:A:868:ARG:HD3	1:A:872:ARG:HH12	1.81	0.44
1:A:1268:GLY:HA2	1:A:1271:LEU:HD12	1.99	0.44
1:A:1285:LYS:HB3	1:A:1286:PRO:HD2	1.99	0.44
1:A:1605:LYS:H	1:A:1658:LYS:HE2	1.82	0.44
1:A:2591:ARG:HH12	1:C:2014:SER:H	1.65	0.44
1:B:210:VAL:HG22	1:B:287:PHE:HD1	1.82	0.44
1:B:336:TRP:CH2	1:B:360:LEU:HD21	2.52	0.44
1:B:1171:PRO:HA	1:B:1191:ARG:HG2	1.99	0.44
1:B:1350:TYR:CD1	1:B:1703:ILE:HD11	2.53	0.44
1:B:1705:VAL:O	1:B:1735:GLU:HB2	2.18	0.44
1:B:2296:ASN:HB3	1:B:2299:MET:SD	2.57	0.44
1:B:2580:PHE:HE1	1:B:2603:ARG:HH21	1.66	0.44
1:C:1581:PHE:HB2	1:C:1586:LEU:HD22	1.99	0.44
1:C:2252:VAL:HG22	1:C:2255:ARG:HH21	1.82	0.44
1:C:2710:LEU:O	1:C:2713:VAL:HG22	2.18	0.44
1:D:664:LEU:HB3	1:D:701:ALA:HB1	1.99	0.44
1:D:1285:LYS:HB3	1:D:1286:PRO:HD2	1.99	0.44
1:D:1350:TYR:CD1	1:D:1703:ILE:HD11	2.53	0.44
1:D:1537:LEU:HD13	1:D:1541:GLN:HB2	2.00	0.44
1:D:2591:ARG:NH1	1:F:2014:SER:N	2.66	0.44
1:E:438:THR:HA	1:E:880:HIS:CE1	2.51	0.44
1:E:763:SER:HB3	1:E:766:ASP:HB2	1.99	0.44
1:E:1268:GLY:HA2	1:E:1271:LEU:HD12	1.99	0.44
1:E:1488:VAL:HB	1:E:1579:VAL:HG22	1.99	0.44
1:E:1650:ASP:C	1:E:1652:TRP:H	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2471:PRO:HA	1:E:2625:ILE:HA	2.00	0.44
1:E:2891:LYS:HZ2	1:E:2903:GLU:HB3	1.82	0.44
1:F:88:SER:HB3	1:F:314:THR:OG1	2.18	0.44
1:F:163:LEU:HD13	1:F:181:LEU:HD23	2.00	0.44
1:F:381:ARG:O	1:F:384:GLN:HG2	2.17	0.44
1:F:412:ASP:H	1:F:1025:VAL:CG2	2.31	0.44
1:F:657:THR:HB	1:F:662:LYS:HE3	2.00	0.44
1:F:2209:LEU:O	1:F:2213:VAL:HG23	2.18	0.44
1:A:210:VAL:HG22	1:A:287:PHE:HD1	1.83	0.44
1:A:816:LEU:HD23	1:A:816:LEU:HA	1.83	0.44
1:A:1488:VAL:HB	1:A:1579:VAL:HG22	1.99	0.44
1:A:1519:VAL:HG13	1:A:1530:LEU:HD23	1.98	0.44
1:A:2014:SER:H	1:B:2591:ARG:HH12	1.66	0.44
1:A:2845:PHE:CD2	1:A:2860:ALA:HA	2.52	0.44
1:B:412:ASP:H	1:B:1025:VAL:CG2	2.31	0.44
1:B:583:GLY:HA2	1:B:892:ILE:HD13	2.00	0.44
1:B:585:HIS:CB	1:B:694:ASP:HB2	2.47	0.44
1:B:602:ARG:NH2	1:B:641:ASP:OD1	2.27	0.44
1:B:782:ARG:NH1	1:B:857:VAL:HG22	2.33	0.44
1:B:1605:LYS:H	1:B:1658:LYS:HE2	1.82	0.44
1:B:1723:GLU:O	1:B:1725:SER:N	2.51	0.44
1:B:2014:SER:N	1:C:2591:ARG:NH1	2.66	0.44
1:B:2297:ARG:HH22	1:B:2391:LYS:HZ3	1.66	0.44
1:C:583:GLY:HA2	1:C:892:ILE:HD13	1.99	0.44
1:C:2471:PRO:HA	1:C:2625:ILE:HA	2.00	0.44
1:C:3019:ASP:CG	1:C:3020:PRO:HD2	2.43	0.44
1:D:516:PRO:HA	1:D:962:MET:SD	2.58	0.44
1:D:1605:LYS:H	1:D:1658:LYS:HE2	1.82	0.44
1:D:2014:SER:N	1:E:2591:ARG:NH1	2.66	0.44
1:D:2452:ASP:HA	1:D:3017:ALA:HA	1.99	0.44
1:E:747:LEU:HD22	1:E:751:ARG:CZ	2.47	0.44
1:E:1695:LEU:HD12	1:E:1695:LEU:HA	1.71	0.44
1:F:1350:TYR:CD1	1:F:1703:ILE:HD11	2.53	0.44
1:F:1462:ALA:HB2	1:F:1468:TYR:HE1	1.81	0.44
1:F:1684:ASP:HA	1:F:1687:PHE:HD2	1.82	0.44
1:F:1705:VAL:O	1:F:1735:GLU:HB2	2.18	0.44
1:F:2541:ARG:O	1:F:2621:VAL:HG13	2.18	0.44
1:F:2737:VAL:N	1:A:2735:HIS:O	2.51	0.44
1:A:412:ASP:H	1:A:1025:VAL:CG2	2.31	0.44
1:A:2472:TYR:CZ	1:A:2930:LEU:HD22	2.52	0.44
1:B:2014:SER:H	1:C:2591:ARG:HH12	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2845:PHE:CD2	1:B:2860:ALA:HA	2.52	0.44
1:C:344:HIS:CD2	1:C:373:ILE:HG13	2.53	0.44
1:C:970:ILE:HG23	1:C:992:THR:HG21	2.00	0.44
1:D:412:ASP:H	1:D:1025:VAL:CG2	2.31	0.44
1:D:475:LEU:HA	1:D:475:LEU:HD23	1.79	0.44
1:D:931:VAL:HG13	1:D:934:LEU:N	2.21	0.44
1:D:1723:GLU:O	1:D:1725:SER:N	2.51	0.44
1:E:745:THR:OG1	1:E:834:GLU:O	2.19	0.44
1:E:1072:TRP:HE1	1:E:1077:VAL:HG22	1.80	0.44
1:E:1503:ILE:HB	1:E:1542:TYR:HB2	2.00	0.44
1:F:1352:PHE:HA	1:F:1353:PRO:HD3	1.72	0.44
1:F:2252:VAL:HG22	1:F:2255:ARG:HH21	1.82	0.44
1:A:550:LYS:HD3	1:A:577:GLU:OE2	2.17	0.44
1:A:583:GLY:HA2	1:A:892:ILE:HD13	2.00	0.44
1:A:763:SER:HB3	1:A:766:ASP:HB2	1.99	0.44
1:A:857:VAL:HG13	1:A:859:PHE:H	1.83	0.44
1:A:1537:LEU:HD13	1:A:1541:GLN:HB2	2.00	0.44
1:A:1723:GLU:O	1:A:1725:SER:N	2.51	0.44
1:B:88:SER:HB3	1:B:314:THR:OG1	2.18	0.44
1:B:222:LEU:HD13	1:B:248:ILE:HD12	1.99	0.44
1:B:657:THR:HB	1:B:662:LYS:HE3	2.00	0.44
1:B:782:ARG:HH11	1:B:857:VAL:HG22	1.83	0.44
1:B:1503:ILE:HB	1:B:1542:TYR:HB2	2.00	0.44
1:C:782:ARG:NH1	1:C:857:VAL:HG22	2.33	0.44
1:C:816:LEU:HD23	1:C:816:LEU:HA	1.83	0.44
1:C:1450:ALA:N	1:C:1613:ARG:O	2.48	0.44
1:C:1537:LEU:HD13	1:C:1541:GLN:HB2	2.00	0.44
1:C:2847:ASP:CG	1:C:2857:GLY:HA2	2.43	0.44
1:D:970:ILE:HG23	1:D:992:THR:HG21	2.00	0.43
1:D:1171:PRO:HA	1:D:1191:ARG:HG2	1.99	0.43
1:D:1582:HIS:HA	1:D:1674:ALA:O	2.18	0.43
1:D:2296:ASN:HB3	1:D:2299:MET:SD	2.57	0.43
1:D:3044:ALA:HB1	1:D:3050:PRO:HB3	2.00	0.43
1:E:2710:LEU:O	1:E:2713:VAL:HG22	2.18	0.43
1:F:1285:LYS:HB3	1:F:1286:PRO:HD2	1.99	0.43
1:F:2299:MET:H	1:F:2299:MET:HG2	1.68	0.43
1:F:2361:VAL:HG21	1:F:2401:ILE:HD11	1.98	0.43
1:F:2580:PHE:HE1	1:F:2603:ARG:HH21	1.66	0.43
1:F:2710:LEU:O	1:F:2713:VAL:HG22	2.18	0.43
1:F:2847:ASP:CG	1:F:2857:GLY:HA2	2.43	0.43
1:F:3044:ALA:HB1	1:F:3050:PRO:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:344:HIS:CD2	1:A:373:ILE:HG13	2.53	0.43
1:A:516:PRO:HA	1:A:962:MET:SD	2.58	0.43
1:A:874:ASP:OD2	1:A:877:TRP:CD1	2.71	0.43
1:A:1503:ILE:HB	1:A:1542:TYR:HB2	2.00	0.43
1:A:1551:LEU:HD13	1:A:1551:LEU:HA	1.79	0.43
1:A:1684:ASP:HA	1:A:1687:PHE:HD2	1.82	0.43
1:A:2014:SER:N	1:B:2591:ARG:HH12	2.16	0.43
1:A:2591:ARG:HH12	1:C:2014:SER:N	2.16	0.43
1:B:351:ILE:HB	1:B:375:ILE:HG12	1.99	0.43
1:B:3019:ASP:CG	1:B:3020:PRO:HD2	2.43	0.43
1:C:34:LEU:O	1:C:38:LEU:HG	2.18	0.43
1:C:50:GLY:O	1:C:53:SER:OG	2.36	0.43
1:C:874:ASP:OD2	1:C:877:TRP:CD1	2.72	0.43
1:C:2246:ALA:N	1:C:2255:ARG:HH12	2.15	0.43
1:C:2296:ASN:HB3	1:C:2299:MET:SD	2.57	0.43
1:D:2334:HIS:CD2	1:D:2391:LYS:HG3	2.50	0.43
1:E:695:ILE:HG22	1:E:697:GLU:HG3	2.00	0.43
1:E:1537:LEU:HD13	1:E:1541:GLN:HB2	2.00	0.43
1:E:2115:HIS:HA	1:E:2118:LEU:CG	2.48	0.43
1:E:2847:ASP:CG	1:E:2857:GLY:HA2	2.43	0.43
1:E:3019:ASP:CG	1:E:3020:PRO:HD2	2.43	0.43
1:F:344:HIS:CD2	1:F:373:ILE:HG13	2.53	0.43
1:F:958:TRP:HZ3	1:F:1130:LEU:HB2	1.83	0.43
1:F:2334:HIS:CD2	1:F:2391:LYS:HG3	2.50	0.43
1:F:2735:HIS:O	1:A:2737:VAL:N	2.51	0.43
1:A:398:ARG:HA	1:A:399:PRO:HD2	1.86	0.43
1:A:782:ARG:HH11	1:A:857:VAL:HG22	1.83	0.43
1:A:2300:PHE:CZ	1:A:2398:LEU:HB3	2.52	0.43
1:A:2958:ASN:HD22	1:A:2976:TRP:HE1	1.65	0.43
1:B:516:PRO:HA	1:B:962:MET:SD	2.58	0.43
1:B:1733:ASN:H	1:B:1737:ASP:HB2	1.83	0.43
1:C:516:PRO:HA	1:C:962:MET:SD	2.58	0.43
1:C:695:ILE:HG22	1:C:697:GLU:HG3	2.00	0.43
1:C:2452:ASP:HA	1:C:3017:ALA:HA	1.99	0.43
1:C:2686:MET:HE3	1:C:2686:MET:HB2	1.94	0.43
1:C:2958:ASN:HD22	1:C:2976:TRP:HE1	1.65	0.43
1:C:3044:ALA:HB1	1:C:3050:PRO:HB3	2.00	0.43
1:D:1650:ASP:C	1:D:1652:TRP:H	2.26	0.43
1:D:1705:VAL:O	1:D:1735:GLU:HB2	2.18	0.43
1:D:2032:VAL:HG11	1:B:2032:VAL:HG11	2.01	0.43
1:D:2115:HIS:HA	1:D:2118:LEU:CG	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3019:ASP:CG	1:D:3020:PRO:HD2	2.43	0.43
1:E:88:SER:HB3	1:E:314:THR:OG1	2.18	0.43
1:E:344:HIS:CD2	1:E:373:ILE:HG13	2.53	0.43
1:E:351:ILE:HB	1:E:375:ILE:HG12	1.99	0.43
1:E:1317:GLY:O	1:E:1324:VAL:HG12	2.19	0.43
1:E:1705:VAL:O	1:E:1735:GLU:HB2	2.18	0.43
1:E:1733:ASN:H	1:E:1737:ASP:HB2	1.83	0.43
1:E:2300:PHE:CZ	1:E:2398:LEU:HB3	2.52	0.43
1:E:2580:PHE:HE1	1:E:2603:ARG:HH21	1.66	0.43
1:F:276:LYS:HB3	1:F:587:TRP:CH2	2.53	0.43
1:F:393:VAL:HG12	1:F:394:PRO:N	2.32	0.43
1:F:583:GLY:HA2	1:F:892:ILE:HD13	1.99	0.43
1:F:1637:VAL:HA	1:F:1638:PRO:HD2	1.90	0.43
1:F:2462:VAL:HG13	1:F:2835:VAL:HG13	2.00	0.43
1:A:2096:VAL:HG23	1:A:2097:ALA:H	1.80	0.43
1:B:163:LEU:HD13	1:B:181:LEU:HD23	2.00	0.43
1:B:544:ILE:O	1:B:546:HIS:N	2.40	0.43
1:B:1268:GLY:HA2	1:B:1271:LEU:HD12	1.99	0.43
1:B:1650:ASP:C	1:B:1652:TRP:H	2.26	0.43
1:B:3044:ALA:HB1	1:B:3050:PRO:HB3	2.00	0.43
1:C:1650:ASP:C	1:C:1652:TRP:H	2.26	0.43
1:C:2334:HIS:CD2	1:C:2391:LYS:HG3	2.50	0.43
1:C:2891:LYS:HG3	1:C:2924:ILE:HD13	1.98	0.43
1:C:2903:GLU:OE2	1:C:2995:THR:OG1	2.36	0.43
1:D:782:ARG:HH11	1:D:857:VAL:HG22	1.83	0.43
1:D:874:ASP:OD2	1:D:877:TRP:CD1	2.72	0.43
1:D:1483:LYS:O	1:D:1487:ILE:HG23	2.17	0.43
1:D:2958:ASN:HD22	1:D:2976:TRP:HE1	1.65	0.43
1:E:34:LEU:O	1:E:38:LEU:HG	2.18	0.43
1:E:1013:THR:CG2	1:E:1014:TRP:H	1.96	0.43
1:E:2209:LEU:O	1:E:2213:VAL:HG23	2.18	0.43
1:E:2252:VAL:HG22	1:E:2255:ARG:HH21	1.82	0.43
1:E:2737:VAL:N	1:B:2735:HIS:O	2.51	0.43
1:F:336:TRP:CH2	1:F:360:LEU:HD21	2.52	0.43
1:F:513:SER:HB3	1:F:961:ARG:NH1	2.33	0.43
1:F:1634:ARG:NH1	1:F:1639:ALA:H	2.11	0.43
1:F:2092:THR:O	1:F:2092:THR:CG2	2.64	0.43
1:F:2903:GLU:OE2	1:F:2995:THR:OG1	2.36	0.43
1:A:34:LEU:O	1:A:38:LEU:HG	2.19	0.43
1:A:351:ILE:HB	1:A:375:ILE:HG12	1.99	0.43
1:A:657:THR:HB	1:A:662:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:658:SER:HB2	1:A:661:VAL:HG23	2.01	0.43
1:A:1582:HIS:HA	1:A:1674:ALA:O	2.18	0.43
1:A:2591:ARG:NH1	1:C:2014:SER:N	2.66	0.43
1:A:2710:LEU:O	1:A:2713:VAL:HG22	2.18	0.43
1:A:2891:LYS:HZ2	1:A:2903:GLU:HG2	1.82	0.43
1:B:575:HIS:CD2	1:B:644:LEU:HD22	2.49	0.43
1:B:647:THR:N	2:B:4000:FMN:O3P	2.51	0.43
1:B:658:SER:HB2	1:B:661:VAL:HG23	2.01	0.43
1:B:874:ASP:OD2	1:B:877:TRP:CD1	2.72	0.43
1:B:2296:ASN:ND2	1:B:2395:THR:HG21	2.34	0.43
1:C:369:ARG:HD2	1:C:369:ARG:HA	1.85	0.43
1:C:647:THR:N	2:C:4000:FMN:O3P	2.51	0.43
1:C:857:VAL:HG13	1:C:859:PHE:H	1.83	0.43
1:C:1504:ARG:HA	1:C:1540:SER:O	2.19	0.43
1:C:1660:LEU:HD23	1:C:1660:LEU:HA	1.86	0.43
1:C:2209:LEU:O	1:C:2213:VAL:HG23	2.17	0.43
1:D:583:GLY:HA2	1:D:892:ILE:HD13	2.00	0.43
1:D:658:SER:HB2	1:D:661:VAL:HG23	2.00	0.43
1:D:1317:GLY:O	1:D:1324:VAL:HG12	2.19	0.43
1:D:1733:ASN:H	1:D:1737:ASP:HB2	1.83	0.43
1:E:647:THR:N	2:E:4000:FMN:O3P	2.51	0.43
1:E:657:THR:HB	1:E:662:LYS:HE3	2.00	0.43
1:E:2014:SER:N	1:F:2591:ARG:NH1	2.66	0.43
1:E:2452:ASP:HA	1:E:3017:ALA:HA	1.99	0.43
1:E:2541:ARG:O	1:E:2621:VAL:HG13	2.18	0.43
1:E:2735:HIS:O	1:B:2737:VAL:N	2.51	0.43
1:F:210:VAL:HG22	1:F:287:PHE:HD1	1.82	0.43
1:F:1605:LYS:H	1:F:1658:LYS:HE2	1.82	0.43
1:F:1650:ASP:C	1:F:1652:TRP:H	2.26	0.43
1:F:2032:VAL:HG11	1:C:2032:VAL:HG11	2.00	0.43
1:F:2137:GLU:O	1:F:2163:THR:N	2.30	0.43
1:F:2512:TRP:O	1:F:2520:LEU:HD12	2.19	0.43
1:A:393:VAL:HG12	1:A:394:PRO:N	2.32	0.43
1:A:695:ILE:HG22	1:A:697:GLU:HG3	2.01	0.43
1:A:2014:SER:N	1:B:2591:ARG:NH1	2.66	0.43
1:A:2209:LEU:O	1:A:2213:VAL:HG23	2.18	0.43
1:A:2686:MET:HE1	1:A:2935:LYS:HZ2	1.82	0.43
1:A:3019:ASP:CG	1:A:3020:PRO:HD2	2.43	0.43
1:B:341:THR:HG23	1:B:344:HIS:ND1	2.34	0.43
1:B:511:ARG:CB	1:B:540:ASN:HB2	2.46	0.43
1:B:784:GLU:CD	1:B:816:LEU:HD21	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:658:SER:HB2	1:C:661:VAL:HG23	2.00	0.43
1:D:580:ARG:HD3	1:D:896:ALA:HB3	2.01	0.43
1:D:683:GLY:CA	1:D:700:ASN:HB2	2.44	0.43
1:D:784:GLU:CD	1:D:816:LEU:HD21	2.44	0.43
1:D:1163:ASP:HA	1:D:1168:ARG:HA	2.01	0.43
1:D:1504:ARG:HA	1:D:1540:SER:O	2.19	0.43
1:D:2209:LEU:O	1:D:2213:VAL:HG23	2.18	0.43
1:E:516:PRO:HA	1:E:962:MET:SD	2.58	0.43
1:E:580:ARG:HD3	1:E:896:ALA:HB3	2.01	0.43
1:E:746:TYR:HB2	1:E:833:ALA:HB1	1.99	0.43
1:E:856:PRO:HG2	1:E:874:ASP:HB2	2.00	0.43
1:E:1084:THR:CG2	1:E:1274:ALA:HA	2.48	0.43
1:E:1582:HIS:HA	1:E:1674:ALA:O	2.18	0.43
1:F:42:GLU:HA	1:F:43:PRO:HD3	1.91	0.43
1:F:351:ILE:HB	1:F:375:ILE:HG12	1.99	0.43
1:F:658:SER:HB2	1:F:661:VAL:HG23	2.00	0.43
1:F:695:ILE:HG22	1:F:697:GLU:HG3	2.00	0.43
1:F:856:PRO:HG2	1:F:874:ASP:HB2	2.00	0.43
1:F:857:VAL:HG13	1:F:859:PHE:H	1.83	0.43
1:F:936:ARG:O	1:F:941:ARG:N	2.45	0.43
1:F:2297:ARG:HH12	1:F:2391:LYS:NZ	2.17	0.43
1:F:2610:ARG:NH1	1:F:2700:LEU:HD11	2.25	0.43
1:A:580:ARG:HD3	1:A:896:ALA:HB3	2.01	0.43
1:A:647:THR:N	2:A:4000:FMN:O3P	2.51	0.43
1:A:1733:ASN:H	1:A:1737:ASP:HB2	1.83	0.43
1:B:34:LEU:O	1:B:38:LEU:HG	2.18	0.43
1:B:695:ILE:HG22	1:B:697:GLU:HG3	2.01	0.43
1:B:1504:ARG:HA	1:B:1540:SER:O	2.19	0.43
1:B:1582:HIS:HA	1:B:1674:ALA:O	2.18	0.43
1:B:2115:HIS:HA	1:B:2118:LEU:CG	2.48	0.43
1:B:2512:TRP:O	1:B:2520:LEU:HD12	2.19	0.43
1:B:2669:LEU:HD23	1:B:2831:MET:HE1	2.01	0.43
1:B:2710:LEU:O	1:B:2713:VAL:HG22	2.18	0.43
1:C:341:THR:HG23	1:C:344:HIS:ND1	2.34	0.43
1:C:412:ASP:H	1:C:1025:VAL:CG2	2.31	0.43
1:C:782:ARG:HH11	1:C:857:VAL:HG22	1.83	0.43
1:C:1117:ALA:HA	1:C:1120:GLU:HB2	2.01	0.43
1:C:1163:ASP:HA	1:C:1168:ARG:HA	2.01	0.43
1:C:2512:TRP:O	1:C:2520:LEU:HD12	2.19	0.43
1:C:2610:ARG:NH1	1:C:2700:LEU:HD11	2.25	0.43
1:E:583:GLY:HA2	1:E:892:ILE:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:857:VAL:HG13	1:E:859:PHE:H	1.83	0.43
1:E:1612:GLY:N	1:E:1623:PHE:O	2.48	0.43
1:E:1672:GLN:HE21	1:E:1672:GLN:HB3	1.58	0.43
1:E:1723:GLU:O	1:E:1725:SER:N	2.51	0.43
1:E:2246:ALA:N	1:E:2255:ARG:HH12	2.15	0.43
1:F:70:SER:HG	1:F:142:ARG:HH22	1.65	0.43
1:F:2810:GLY:HA2	1:F:2896:THR:HG22	2.01	0.43
1:A:575:HIS:CD2	1:A:644:LEU:HD22	2.49	0.43
1:A:2115:HIS:HA	1:A:2118:LEU:CG	2.49	0.43
1:A:2706:PRO:O	1:A:2709:ILE:HG12	2.19	0.43
1:A:2847:ASP:CG	1:A:2857:GLY:HA2	2.43	0.43
1:B:276:LYS:HB3	1:B:587:TRP:CH2	2.53	0.43
1:B:307:ILE:HG22	1:B:311:TRP:CE2	2.54	0.43
1:C:340:ILE:HD11	1:C:351:ILE:HD13	2.00	0.43
1:C:1582:HIS:HA	1:C:1674:ALA:O	2.18	0.43
1:C:2541:ARG:O	1:C:2621:VAL:HG13	2.18	0.43
1:C:2665:THR:HA	1:C:2666:PRO:HD3	1.86	0.43
1:D:657:THR:HB	1:D:662:LYS:HE3	2.00	0.43
1:D:856:PRO:HG2	1:D:874:ASP:HB2	2.00	0.43
1:D:857:VAL:HG13	1:D:859:PHE:H	1.83	0.43
1:D:2591:ARG:HH12	1:F:2014:SER:N	2.16	0.43
1:D:2891:LYS:HZ2	1:D:2903:GLU:HB3	1.84	0.43
1:E:276:LYS:HB3	1:E:587:TRP:CH2	2.53	0.43
1:E:550:LYS:HD3	1:E:577:GLU:OE2	2.17	0.43
1:E:585:HIS:HD2	1:E:586:SER:H	1.62	0.43
1:E:1163:ASP:HA	1:E:1168:ARG:HA	2.01	0.43
1:E:2462:VAL:HG13	1:E:2835:VAL:HG13	2.00	0.43
1:F:34:LEU:O	1:F:38:LEU:HG	2.19	0.43
1:F:580:ARG:HD3	1:F:896:ALA:HB3	2.01	0.43
1:F:647:THR:N	2:F:4000:FMN:O3P	2.51	0.43
1:F:1084:THR:CG2	1:F:1274:ALA:HA	2.48	0.43
1:F:1163:ASP:HA	1:F:1168:ARG:HA	2.01	0.43
1:F:1317:GLY:O	1:F:1324:VAL:HG12	2.19	0.43
1:F:1695:LEU:HD12	1:F:1695:LEU:HA	1.71	0.43
1:F:2695:MET:HG3	1:F:2696:TYR:N	2.34	0.43
1:F:2697:HIS:CD2	1:A:2700:LEU:HD22	2.43	0.43
1:F:2891:LYS:HZ2	1:F:2903:GLU:HG2	1.83	0.43
1:A:2580:PHE:HE1	1:A:2603:ARG:HH21	1.66	0.43
1:B:212:ASN:C	1:B:244:ARG:HB3	2.44	0.43
1:B:857:VAL:HG13	1:B:859:PHE:H	1.83	0.43
1:B:2471:PRO:HA	1:B:2625:ILE:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:210:VAL:HG22	1:C:287:PHE:HD1	1.83	0.43
1:C:307:ILE:HG22	1:C:311:TRP:CE2	2.54	0.43
1:C:780:ARG:NH1	1:C:817:GLU:OE2	2.52	0.43
1:C:1285:LYS:HB3	1:C:1286:PRO:HD2	1.99	0.43
1:C:2115:HIS:HA	1:C:2118:LEU:CG	2.49	0.43
1:C:2444:PRO:HB2	1:C:2988:PRO:HB3	2.01	0.43
1:C:2580:PHE:HE1	1:C:2603:ARG:HH21	1.66	0.43
1:D:695:ILE:HG22	1:D:697:GLU:HG3	2.01	0.43
1:D:1117:ALA:HA	1:D:1120:GLU:HB2	2.01	0.43
1:D:1133:VAL:N	1:D:1193:ALA:O	2.48	0.43
1:D:2296:ASN:ND2	1:D:2395:THR:HG21	2.34	0.43
1:D:2735:HIS:O	1:C:2737:VAL:N	2.51	0.43
1:D:2786:ASP:OD2	1:D:2789:MET:HG2	2.19	0.43
1:D:2810:GLY:HA2	1:D:2896:THR:HG22	2.01	0.43
1:E:2444:PRO:HB2	1:E:2988:PRO:HB3	2.01	0.43
1:F:307:ILE:HG22	1:F:311:TRP:CE2	2.54	0.43
1:F:475:LEU:HD23	1:F:475:LEU:HA	1.79	0.43
1:F:664:LEU:HB3	1:F:701:ALA:HB1	1.99	0.43
1:F:784:GLU:CD	1:F:816:LEU:HD21	2.44	0.43
1:F:874:ASP:OD2	1:F:877:TRP:CD1	2.72	0.43
1:F:1030:ALA:N	1:F:1031:PRO:CD	2.81	0.43
1:F:1117:ALA:HA	1:F:1120:GLU:HB2	2.01	0.43
1:F:1413:PRO:O	1:C:2328:GLU:OE1	2.36	0.43
1:A:856:PRO:HG2	1:A:874:ASP:HB2	2.00	0.43
1:B:344:HIS:CD2	1:B:373:ILE:HG13	2.53	0.43
1:B:664:LEU:HB3	1:B:701:ALA:HB1	1.99	0.43
1:B:1317:GLY:O	1:B:1324:VAL:HG12	2.19	0.43
1:B:2096:VAL:CG1	1:B:2097:ALA:N	2.82	0.43
1:B:2541:ARG:O	1:B:2621:VAL:HG13	2.18	0.43
1:C:163:LEU:HD13	1:C:181:LEU:HD23	2.00	0.43
1:D:647:THR:N	2:D:4000:FMN:O3P	2.51	0.43
1:D:885:GLU:HG2	1:D:887:ASP:H	1.84	0.43
1:D:2252:VAL:HG22	1:D:2255:ARG:HH21	1.82	0.43
1:D:2706:PRO:O	1:D:2709:ILE:HG12	2.19	0.43
1:D:2710:LEU:O	1:D:2713:VAL:HG22	2.18	0.43
1:D:2891:LYS:HZ2	1:D:2903:GLU:CB	2.31	0.43
1:D:2903:GLU:OE2	1:D:2995:THR:OG1	2.36	0.43
1:E:42:GLU:HA	1:E:43:PRO:HD3	1.91	0.43
1:E:307:ILE:HG22	1:E:311:TRP:CE2	2.54	0.43
1:E:340:ILE:HD11	1:E:351:ILE:HD13	2.01	0.43
1:E:487:PHE:O	1:E:521:VAL:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:782:ARG:HH11	1:E:857:VAL:HG22	1.83	0.43
1:E:874:ASP:OD2	1:E:877:TRP:CD1	2.72	0.43
1:E:970:ILE:HG23	1:E:992:THR:HG21	2.00	0.43
1:E:2512:TRP:O	1:E:2520:LEU:HD12	2.19	0.43
1:E:2958:ASN:HD22	1:E:2976:TRP:HE1	1.65	0.43
1:F:2115:HIS:HA	1:F:2118:LEU:CG	2.49	0.43
1:F:2669:LEU:HD23	1:F:2831:MET:HE1	2.01	0.43
1:F:2706:PRO:O	1:F:2709:ILE:HG12	2.19	0.43
1:A:340:ILE:HD11	1:A:351:ILE:HD13	2.01	0.43
1:A:438:THR:HA	1:A:880:HIS:CE1	2.51	0.43
1:A:780:ARG:NH1	1:A:817:GLU:OE2	2.52	0.43
1:A:2244:ARG:HG2	1:A:2245:VAL:N	2.34	0.43
1:A:2297:ARG:HH12	1:A:2391:LYS:NZ	2.17	0.43
1:A:3044:ALA:HB1	1:A:3050:PRO:HB3	2.00	0.43
1:B:1537:LEU:HD13	1:B:1541:GLN:HB2	2.00	0.43
1:B:2252:VAL:HG22	1:B:2255:ARG:HH21	1.82	0.43
1:B:2297:ARG:HH12	1:B:2391:LYS:NZ	2.17	0.43
1:B:2405:MET:HE2	1:B:2409:ALA:HB2	2.01	0.43
1:B:2695:MET:HG3	1:B:2696:TYR:N	2.34	0.43
1:B:2810:GLY:HA2	1:B:2896:THR:HG22	2.01	0.43
1:B:2846:ALA:O	1:B:2859:GLY:HA3	2.19	0.43
1:C:78:GLU:HB2	1:C:176:VAL:HG21	2.01	0.43
1:C:212:ASN:C	1:C:244:ARG:HB3	2.44	0.43
1:C:393:VAL:O	1:C:395:GLU:N	2.52	0.43
1:C:709:LEU:HD21	1:C:872:ARG:NE	2.34	0.43
1:C:2786:ASP:OD2	1:C:2789:MET:HG2	2.19	0.43
1:C:2810:GLY:HA2	1:C:2896:THR:HG22	2.01	0.43
1:D:1695:LEU:HD12	1:D:1695:LEU:HA	1.71	0.42
1:D:2014:SER:N	1:E:2591:ARG:HH12	2.16	0.42
1:D:2299:MET:H	1:D:2299:MET:HG2	1.68	0.42
1:D:2444:PRO:HB2	1:D:2988:PRO:HB3	2.01	0.42
1:D:2541:ARG:O	1:D:2621:VAL:HG13	2.18	0.42
1:E:50:GLY:O	1:E:53:SER:OG	2.36	0.42
1:E:53:SER:HA	1:E:359:ILE:HG13	2.01	0.42
1:E:544:ILE:O	1:E:546:HIS:N	2.40	0.42
1:E:780:ARG:NH1	1:E:817:GLU:OE2	2.52	0.42
1:E:2014:SER:N	1:F:2591:ARG:HH12	2.16	0.42
1:E:2228:LEU:HD23	1:E:2228:LEU:HA	1.86	0.42
1:E:2296:ASN:ND2	1:E:2395:THR:HG21	2.34	0.42
1:E:2557:LEU:HB3	1:E:2613:ARG:HB2	2.01	0.42
1:E:2558:LEU:HD11	1:B:2610:ARG:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2610:ARG:HD2	1:B:2558:LEU:HD11	2.01	0.42
1:E:3044:ALA:HB1	1:E:3050:PRO:HB3	2.00	0.42
1:F:211:THR:HB	1:F:286:VAL:HB	2.01	0.42
1:F:212:ASN:C	1:F:244:ARG:HB3	2.44	0.42
1:F:436:THR:OG1	1:F:437:PRO:HD3	2.19	0.42
1:F:1412:HIS:HD2	1:F:1413:PRO:CD	2.31	0.42
1:F:1504:ARG:HA	1:F:1540:SER:O	2.19	0.42
1:F:1582:HIS:HA	1:F:1674:ALA:O	2.18	0.42
1:F:1733:ASN:H	1:F:1737:ASP:HB2	1.83	0.42
1:F:2471:PRO:HA	1:F:2625:ILE:HA	2.00	0.42
1:F:2752:ASP:CG	1:A:2753:LYS:HZ3	2.24	0.42
1:F:2889:ILE:HB	1:F:2924:ILE:HG12	2.01	0.42
1:A:203:ASP:OD2	1:C:1087:PHE:CZ	2.72	0.42
1:A:276:LYS:HB3	1:A:587:TRP:CH2	2.53	0.42
1:A:1087:PHE:CZ	1:B:203:ASP:OD2	2.72	0.42
1:A:2096:VAL:CG2	1:A:2097:ALA:N	2.82	0.42
1:A:2334:HIS:CD2	1:A:2391:LYS:HG3	2.50	0.42
1:A:2541:ARG:O	1:A:2621:VAL:HG13	2.18	0.42
1:A:2669:LEU:HD23	1:A:2831:MET:HE1	2.01	0.42
1:A:2836:LEU:HD23	1:A:2836:LEU:HA	1.87	0.42
1:A:2911:ALA:O	1:A:2916:ARG:HB2	2.19	0.42
1:B:1662:ARG:HG3	1:B:1663:LYS:N	2.34	0.42
1:B:2462:VAL:HG13	1:B:2835:VAL:HG13	2.00	0.42
1:B:2891:LYS:HZ2	1:B:2903:GLU:CG	2.32	0.42
1:C:1705:VAL:O	1:C:1735:GLU:HB2	2.18	0.42
1:C:2092:THR:O	1:C:2092:THR:CG2	2.64	0.42
1:C:2297:ARG:HH22	1:C:2391:LYS:HZ3	1.65	0.42
1:C:2889:ILE:HB	1:C:2924:ILE:HG12	2.01	0.42
1:D:598:TYR:OH	1:D:639:PRO:O	2.30	0.42
1:D:780:ARG:NH1	1:D:817:GLU:OE2	2.52	0.42
1:D:1662:ARG:HG3	1:D:1663:LYS:N	2.34	0.42
1:D:2737:VAL:N	1:C:2735:HIS:O	2.51	0.42
1:D:2911:ALA:O	1:D:2916:ARG:HB2	2.19	0.42
1:E:211:THR:HB	1:E:286:VAL:HB	2.01	0.42
1:E:784:GLU:CD	1:E:816:LEU:HD21	2.44	0.42
1:E:1662:ARG:HG3	1:E:1663:LYS:N	2.34	0.42
1:E:2530:TYR:O	1:E:2533:ALA:N	2.52	0.42
1:E:2706:PRO:O	1:E:2709:ILE:HG12	2.19	0.42
1:F:341:THR:HG23	1:F:344:HIS:ND1	2.34	0.42
1:F:1537:LEU:HD13	1:F:1541:GLN:HB2	2.00	0.42
1:F:2557:LEU:HB3	1:F:2613:ARG:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:88:SER:HB3	1:A:314:THR:OG1	2.18	0.42
1:A:211:THR:HB	1:A:286:VAL:HB	2.01	0.42
1:A:544:ILE:O	1:A:546:HIS:N	2.41	0.42
1:A:1163:ASP:HA	1:A:1168:ARG:HA	2.01	0.42
1:A:1650:ASP:C	1:A:1652:TRP:H	2.26	0.42
1:A:1705:VAL:O	1:A:1735:GLU:HB2	2.18	0.42
1:A:2444:PRO:HB2	1:A:2988:PRO:HB3	2.01	0.42
1:A:2512:TRP:O	1:A:2520:LEU:HD12	2.19	0.42
1:A:2530:TYR:O	1:A:2533:ALA:N	2.52	0.42
1:A:2808:ARG:HH21	1:A:2901:PRO:HD3	1.85	0.42
1:B:580:ARG:HD3	1:B:896:ALA:HB3	2.01	0.42
1:B:780:ARG:NH1	1:B:817:GLU:OE2	2.52	0.42
1:B:856:PRO:HG2	1:B:874:ASP:HB2	2.00	0.42
1:B:970:ILE:HG23	1:B:992:THR:HG21	2.00	0.42
1:B:1163:ASP:HA	1:B:1168:ARG:HA	2.01	0.42
1:C:45:ALA:O	1:C:351:ILE:HA	2.19	0.42
1:C:211:THR:HB	1:C:286:VAL:HB	2.01	0.42
1:C:954:PRO:O	1:C:965:ASN:N	2.52	0.42
1:C:1672:GLN:HE21	1:C:1672:GLN:HB3	1.58	0.42
1:C:2428:PRO:O	1:C:2428:PRO:CG	2.67	0.42
1:D:1093:PRO:HB3	1:D:1277:HIS:CE1	2.52	0.42
1:D:2297:ARG:HH12	1:D:2391:LYS:NZ	2.17	0.42
1:D:2889:ILE:HB	1:D:2924:ILE:HG12	2.01	0.42
1:E:45:ALA:O	1:E:351:ILE:HA	2.20	0.42
1:E:365:ALA:O	1:E:369:ARG:N	2.42	0.42
1:E:511:ARG:CB	1:E:540:ASN:HB2	2.46	0.42
1:E:1275:ALA:O	1:E:1279:VAL:HG23	2.20	0.42
1:E:2674:HIS:HA	1:E:2675:PRO:HD2	1.88	0.42
1:F:1030:ALA:N	1:F:1031:PRO:HD3	2.34	0.42
1:F:1503:ILE:HB	1:F:1542:TYR:HB2	2.00	0.42
1:F:3019:ASP:CG	1:F:3020:PRO:HD2	2.43	0.42
1:A:1093:PRO:HB3	1:A:1277:HIS:CE1	2.52	0.42
1:B:107:LEU:HD13	1:B:113:VAL:HB	2.01	0.42
1:B:613:GLY:HA2	2:B:4000:FMN:O5'	2.19	0.42
1:B:885:GLU:HG2	1:B:887:ASP:H	1.84	0.42
1:B:1021:LEU:HB3	1:B:1034:GLU:HG2	2.01	0.42
1:B:1084:THR:CG2	1:B:1274:ALA:HA	2.48	0.42
1:C:784:GLU:CD	1:C:816:LEU:HD21	2.44	0.42
1:C:856:PRO:HG2	1:C:874:ASP:HB2	2.00	0.42
1:C:2706:PRO:O	1:C:2709:ILE:HG12	2.19	0.42
1:D:1703:ILE:HG22	1:D:1704:GLY:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2652:ILE:HG22	1:D:3051:MET:HE1	2.01	0.42
1:E:488:ASN:OD1	1:E:523:SER:OG	2.34	0.42
1:E:602:ARG:NH2	1:E:641:ASP:OD1	2.28	0.42
1:E:1504:ARG:HA	1:E:1540:SER:O	2.19	0.42
1:E:2297:ARG:HH12	1:E:2391:LYS:NZ	2.17	0.42
1:E:2468:GLU:OE2	1:E:2478:ARG:NH2	2.48	0.42
1:E:2752:ASP:CG	1:B:2753:LYS:HZ3	2.25	0.42
1:E:2903:GLU:OE2	1:E:2995:THR:OG1	2.36	0.42
1:F:53:SER:HA	1:F:359:ILE:HG13	2.01	0.42
1:F:479:LEU:HD21	1:F:485:ILE:HD11	2.02	0.42
1:F:780:ARG:NH1	1:F:817:GLU:OE2	2.52	0.42
1:F:958:TRP:CZ3	1:F:1130:LEU:HB2	2.54	0.42
1:F:1533:VAL:N	1:F:1543:ALA:O	2.52	0.42
1:F:2808:ARG:HH21	1:F:2901:PRO:HD3	1.85	0.42
1:F:2911:ALA:O	1:F:2916:ARG:HB2	2.20	0.42
1:A:336:TRP:HE3	1:A:339:GLU:OE2	2.03	0.42
1:A:511:ARG:CB	1:A:540:ASN:HB2	2.46	0.42
1:A:1280:THR:O	1:A:1288:PRO:HB3	2.20	0.42
1:A:1672:GLN:HE21	1:A:1672:GLN:HB3	1.58	0.42
1:A:2428:PRO:O	1:A:2428:PRO:CG	2.68	0.42
1:A:2557:LEU:HB3	1:A:2613:ARG:HB2	2.01	0.42
1:A:2810:GLY:HA2	1:A:2896:THR:HG22	2.01	0.42
1:A:2957:PRO:HB3	1:A:2980:PRO:N	2.35	0.42
1:B:53:SER:HA	1:B:359:ILE:HG13	2.01	0.42
1:B:1087:PHE:CZ	1:C:203:ASP:OD2	2.72	0.42
1:B:1634:ARG:NH1	1:B:1639:ALA:H	2.11	0.42
1:B:2468:GLU:OE2	1:B:2478:ARG:NH2	2.48	0.42
1:B:2557:LEU:HB3	1:B:2613:ARG:HB2	2.01	0.42
1:C:276:LYS:HB3	1:C:587:TRP:CH2	2.53	0.42
1:C:657:THR:HB	1:C:662:LYS:HE3	2.00	0.42
1:C:2141:VAL:HG22	1:C:2238:PHE:HD2	1.85	0.42
1:C:2911:ALA:O	1:C:2916:ARG:HB2	2.19	0.42
1:C:2957:PRO:HB3	1:C:2980:PRO:N	2.34	0.42
1:D:436:THR:OG1	1:D:437:PRO:HD3	2.19	0.42
1:D:613:GLY:HA2	2:D:4000:FMN:O5'	2.19	0.42
1:D:668:THR:HG23	1:D:683:GLY:HA3	2.02	0.42
1:D:1106:CYS:SG	1:D:1174:VAL:HG11	2.60	0.42
1:D:1247:ASN:HA	1:D:1248:PRO:HD3	1.83	0.42
1:D:1280:THR:O	1:D:1288:PRO:HB3	2.20	0.42
1:D:2244:ARG:HG2	1:D:2245:VAL:N	2.34	0.42
1:D:2294:SER:HB3	1:D:2310:LYS:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2892:HIS:HA	1:D:2942:GLN:HE22	1.85	0.42
1:E:1457:GLU:OE2	1:E:1614:TYR:OH	2.30	0.42
1:E:1656:LYS:N	1:E:1657:PRO:HD2	2.35	0.42
1:F:559:SER:O	1:F:563:ILE:HG12	2.20	0.42
1:F:598:TYR:OH	1:F:639:PRO:O	2.30	0.42
1:F:613:GLY:HA2	2:F:4000:FMN:O5'	2.19	0.42
1:F:709:LEU:HD21	1:F:872:ARG:NE	2.34	0.42
1:F:2428:PRO:O	1:F:2428:PRO:CG	2.67	0.42
1:F:2558:LEU:HD11	1:A:2610:ARG:HD2	2.01	0.42
1:A:50:GLY:O	1:A:53:SER:OG	2.36	0.42
1:A:488:ASN:OD1	1:A:523:SER:OG	2.34	0.42
1:A:709:LEU:HD21	1:A:872:ARG:NE	2.34	0.42
1:A:970:ILE:HG23	1:A:992:THR:HG21	2.00	0.42
1:A:1504:ARG:HA	1:A:1540:SER:O	2.19	0.42
1:A:2695:MET:HG3	1:A:2696:TYR:N	2.34	0.42
1:B:211:THR:HB	1:B:286:VAL:HB	2.01	0.42
1:B:479:LEU:HD21	1:B:485:ILE:HD11	2.02	0.42
1:B:709:LEU:HD21	1:B:872:ARG:NE	2.34	0.42
1:B:1275:ALA:HB2	1:B:1311:PHE:CE2	2.55	0.42
1:B:2449:GLU:O	1:B:2449:GLU:CG	2.68	0.42
1:B:2706:PRO:O	1:B:2709:ILE:HG12	2.19	0.42
1:B:2786:ASP:OD2	1:B:2789:MET:HG2	2.19	0.42
1:B:2891:LYS:NZ	1:B:2903:GLU:HB3	2.35	0.42
1:C:613:GLY:HA2	2:C:4000:FMN:O5'	2.19	0.42
1:C:1656:LYS:N	1:C:1657:PRO:HD2	2.35	0.42
1:C:1662:ARG:HG3	1:C:1663:LYS:N	2.34	0.42
1:C:2296:ASN:ND2	1:C:2395:THR:HG21	2.34	0.42
1:C:2297:ARG:HH12	1:C:2391:LYS:NZ	2.17	0.42
1:C:2855:ALA:HA	1:C:2856:PRO:HD3	1.93	0.42
1:D:2141:VAL:HG22	1:D:2238:PHE:HD2	1.84	0.42
1:D:2695:MET:HG3	1:D:2696:TYR:N	2.34	0.42
1:D:2753:LYS:HA	1:D:2753:LYS:HD3	1.83	0.42
1:D:2891:LYS:NZ	1:D:2903:GLU:HB3	2.35	0.42
1:E:658:SER:HB2	1:E:661:VAL:HG23	2.01	0.42
1:E:1275:ALA:HB2	1:E:1311:PHE:CE2	2.55	0.42
1:E:1684:ASP:HA	1:E:1687:PHE:HD2	1.82	0.42
1:E:2805:ASP:OD2	1:E:2807:ARG:HB2	2.20	0.42
1:E:2889:ILE:HG13	1:E:2922:LEU:HD13	2.02	0.42
1:F:488:ASN:OD1	1:F:523:SER:OG	2.34	0.42
1:F:2244:ARG:HG2	1:F:2245:VAL:N	2.35	0.42
1:F:2405:MET:HE2	1:F:2409:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2957:PRO:HB3	1:F:2980:PRO:N	2.34	0.42
1:A:559:SER:O	1:A:563:ILE:HG12	2.20	0.42
1:A:970:ILE:O	1:A:974:THR:HG22	2.20	0.42
1:A:1008:VAL:CG1	1:A:1008:VAL:O	2.68	0.42
1:A:1457:GLU:OE2	1:A:1614:TYR:OH	2.30	0.42
1:A:1702:GLU:CD	1:A:1711:VAL:HG22	2.45	0.42
1:A:2055:VAL:HG22	1:A:2194:TRP:CD1	2.55	0.42
1:A:2889:ILE:HG13	1:A:2922:LEU:HD13	2.02	0.42
1:A:2891:LYS:HZ2	1:A:2903:GLU:CG	2.32	0.42
1:B:45:ALA:O	1:B:351:ILE:HA	2.20	0.42
1:B:336:TRP:HE3	1:B:339:GLU:OE2	2.03	0.42
1:B:1120:GLU:HA	1:B:1125:VAL:CG2	2.50	0.42
1:B:2244:ARG:HG2	1:B:2245:VAL:N	2.34	0.42
1:B:2800:PHE:CZ	1:B:2812:LEU:HD13	2.55	0.42
1:C:479:LEU:HD21	1:C:485:ILE:HD11	2.02	0.42
1:C:970:ILE:O	1:C:974:THR:HG22	2.20	0.42
1:C:1021:LEU:HB3	1:C:1034:GLU:HG2	2.01	0.42
1:C:1280:THR:O	1:C:1288:PRO:HB3	2.20	0.42
1:C:2244:ARG:HG2	1:C:2245:VAL:N	2.34	0.42
1:C:2846:ALA:O	1:C:2859:GLY:HA3	2.19	0.42
1:C:2892:HIS:HA	1:C:2942:GLN:HE22	1.85	0.42
1:D:709:LEU:HD21	1:D:872:ARG:NE	2.34	0.42
1:D:1275:ALA:HB2	1:D:1311:PHE:CE2	2.55	0.42
1:D:1352:PHE:HA	1:D:1353:PRO:HD3	1.72	0.42
1:D:2286:ARG:HD3	1:D:2331:SER:OG	2.20	0.42
1:D:2512:TRP:O	1:D:2520:LEU:HD12	2.19	0.42
1:D:2591:ARG:HH12	1:F:2014:SER:H	1.65	0.42
1:D:2957:PRO:HB3	1:D:2980:PRO:N	2.34	0.42
1:E:210:VAL:HG22	1:E:287:PHE:HD1	1.83	0.42
1:E:212:ASN:C	1:E:244:ARG:HB3	2.44	0.42
1:E:613:GLY:HA2	2:E:4000:FMN:O5'	2.19	0.42
1:E:885:GLU:HG2	1:E:887:ASP:H	1.84	0.42
1:E:2032:VAL:HG11	1:A:2032:VAL:HG11	2.00	0.42
1:E:2405:MET:HE2	1:E:2409:ALA:HB2	2.01	0.42
1:F:782:ARG:HH11	1:F:857:VAL:HG22	1.83	0.42
1:F:1106:CYS:SG	1:F:1174:VAL:HG11	2.60	0.42
1:F:1702:GLU:CD	1:F:1711:VAL:HG22	2.45	0.42
1:F:2300:PHE:HZ	1:F:2398:LEU:HB3	1.85	0.42
1:F:2610:ARG:HD2	1:A:2558:LEU:HD11	2.02	0.42
1:F:2715:PRO:HD2	1:A:2737:VAL:HG11	2.02	0.42
1:F:2786:ASP:OD2	1:F:2789:MET:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:44:TYR:O	1:A:153:VAL:N	2.44	0.42
1:A:53:SER:HA	1:A:359:ILE:HG13	2.01	0.42
1:A:307:ILE:HG22	1:A:311:TRP:CE2	2.54	0.42
1:A:585:HIS:HD2	1:A:586:SER:H	1.62	0.42
1:A:1275:ALA:O	1:A:1279:VAL:HG23	2.20	0.42
1:A:2805:ASP:OD2	1:A:2807:ARG:HB2	2.20	0.42
1:A:2891:LYS:NZ	1:A:2903:GLU:HB3	2.35	0.42
1:B:488:ASN:OD1	1:B:523:SER:OG	2.34	0.42
1:B:1280:THR:O	1:B:1288:PRO:HB3	2.20	0.42
1:B:1291:LYS:HZ2	1:B:1346:PRO:N	2.18	0.42
1:B:1656:LYS:N	1:B:1657:PRO:HD2	2.35	0.42
1:B:2428:PRO:O	1:B:2428:PRO:CG	2.67	0.42
1:B:2805:ASP:OD2	1:B:2807:ARG:HB2	2.20	0.42
1:B:2957:PRO:HB3	1:B:2980:PRO:N	2.35	0.42
1:C:436:THR:OG1	1:C:437:PRO:HD3	2.19	0.42
1:C:1317:GLY:O	1:C:1324:VAL:HG12	2.19	0.42
1:C:2055:VAL:HG22	1:C:2194:TRP:CD1	2.55	0.42
1:C:2354:SER:O	1:C:2358:GLU:HG3	2.20	0.42
1:C:2930:LEU:HD23	1:C:2930:LEU:HA	1.93	0.42
1:D:816:LEU:HA	1:D:816:LEU:HD23	1.83	0.42
1:D:957:LEU:O	1:D:1034:GLU:HB2	2.20	0.42
1:D:1021:LEU:HB3	1:D:1034:GLU:HG2	2.01	0.42
1:D:1120:GLU:HA	1:D:1125:VAL:CG2	2.50	0.42
1:D:1228:VAL:HB	1:D:1311:PHE:HB2	2.02	0.42
1:D:1656:LYS:N	1:D:1657:PRO:HD2	2.35	0.42
1:D:1660:LEU:HD23	1:D:1660:LEU:HA	1.86	0.42
1:D:2428:PRO:O	1:D:2428:PRO:CG	2.68	0.42
1:D:2468:GLU:OE2	1:D:2478:ARG:NH2	2.48	0.42
1:D:2557:LEU:HB3	1:D:2613:ARG:HB2	2.01	0.42
1:E:957:LEU:O	1:E:1034:GLU:HB2	2.20	0.42
1:E:1280:THR:O	1:E:1288:PRO:HB3	2.20	0.42
1:E:2141:VAL:HG22	1:E:2238:PHE:HD2	1.85	0.42
1:E:2701:LEU:HD23	1:B:2558:LEU:HB2	2.02	0.42
1:E:2786:ASP:OD2	1:E:2789:MET:HG2	2.19	0.42
1:E:2810:GLY:HA2	1:E:2896:THR:HG22	2.01	0.42
1:E:2911:ALA:O	1:E:2916:ARG:HB2	2.19	0.42
1:E:2957:PRO:HB3	1:E:2980:PRO:N	2.35	0.42
1:F:107:LEU:HD13	1:F:113:VAL:HB	2.02	0.42
1:F:336:TRP:HE3	1:F:339:GLU:OE2	2.03	0.42
1:F:885:GLU:HG2	1:F:887:ASP:H	1.84	0.42
1:F:970:ILE:O	1:F:974:THR:HG22	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1275:ALA:HB2	1:F:1311:PHE:CE2	2.55	0.42
1:F:1612:GLY:N	1:F:1623:PHE:O	2.48	0.42
1:F:2846:ALA:O	1:F:2859:GLY:HA3	2.20	0.42
1:A:212:ASN:C	1:A:244:ARG:HB3	2.44	0.42
1:A:668:THR:HG23	1:A:683:GLY:HA3	2.02	0.42
1:A:1021:LEU:HB3	1:A:1034:GLU:HG2	2.01	0.42
1:A:2563:LEU:HD21	1:A:2567:PHE:HB2	2.02	0.42
1:B:1275:ALA:O	1:B:1279:VAL:HG23	2.20	0.42
1:B:2014:SER:N	1:C:2591:ARG:HH12	2.16	0.42
1:B:2294:SER:HB3	1:B:2310:LYS:HB2	2.02	0.42
1:B:2889:ILE:HG13	1:B:2922:LEU:HD13	2.02	0.42
1:C:365:ALA:O	1:C:369:ARG:N	2.42	0.42
1:C:885:GLU:HG2	1:C:887:ASP:H	1.84	0.42
1:C:931:VAL:HG13	1:C:934:LEU:N	2.21	0.42
1:C:1275:ALA:HB2	1:C:1311:PHE:CE2	2.55	0.42
1:C:1380:ALA:HB1	1:C:1474:LEU:CD1	2.50	0.42
1:C:1504:ARG:HA	1:C:1505:PRO:HD2	1.93	0.42
1:C:1702:GLU:CD	1:C:1711:VAL:HG22	2.45	0.42
1:C:1705:VAL:C	1:C:1735:GLU:HB2	2.45	0.42
1:C:1733:ASN:H	1:C:1737:ASP:HB2	1.83	0.42
1:C:2503:LYS:HG3	1:C:2513:TYR:HB2	2.02	0.42
1:C:2557:LEU:HB3	1:C:2613:ARG:HB2	2.01	0.42
1:C:2669:LEU:HD23	1:C:2831:MET:HE1	2.01	0.42
1:D:479:LEU:HD21	1:D:485:ILE:HD11	2.02	0.42
1:D:970:ILE:O	1:D:974:THR:HG22	2.20	0.42
1:D:2055:VAL:HG22	1:D:2194:TRP:CD1	2.55	0.42
1:D:2297:ARG:HH22	1:D:2391:LYS:HZ3	1.68	0.42
1:D:2354:SER:O	1:D:2358:GLU:HG3	2.20	0.42
1:D:2405:MET:HE2	1:D:2409:ALA:HB2	2.01	0.42
1:D:2805:ASP:OD2	1:D:2807:ARG:HB2	2.20	0.42
1:D:2891:LYS:HZ2	1:D:2903:GLU:HG2	1.84	0.42
1:E:341:THR:HG23	1:E:344:HIS:ND1	2.34	0.42
1:E:559:SER:O	1:E:563:ILE:HG12	2.20	0.42
1:E:928:ALA:HB1	1:E:931:VAL:CB	2.50	0.42
1:E:1087:PHE:CZ	1:F:203:ASP:OD2	2.72	0.42
1:E:1117:ALA:HA	1:E:1120:GLU:HB2	2.01	0.42
1:E:1705:VAL:C	1:E:1735:GLU:HB2	2.45	0.42
1:E:2096:VAL:CG1	1:E:2097:ALA:N	2.82	0.42
1:E:2428:PRO:O	1:E:2428:PRO:CG	2.67	0.42
1:E:2558:LEU:HB2	1:B:2701:LEU:HD23	2.02	0.42
1:E:2891:LYS:HZ2	1:E:2903:GLU:HG2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:78:GLU:HB2	1:F:176:VAL:HG21	2.01	0.42
1:F:393:VAL:O	1:F:395:GLU:N	2.53	0.42
1:F:1036:ASP:C	1:F:1041:ALA:HB3	2.44	0.42
1:F:1280:THR:O	1:F:1288:PRO:HB3	2.20	0.42
1:F:1380:ALA:HB1	1:F:1474:LEU:CD1	2.50	0.42
1:F:2173:ASP:CG	1:F:2799:LYS:HZ3	2.24	0.42
1:F:2444:PRO:HB2	1:F:2988:PRO:HB3	2.01	0.42
1:F:2805:ASP:OD2	1:F:2807:ARG:HB2	2.20	0.42
1:F:2891:LYS:NZ	1:F:2903:GLU:HB3	2.35	0.42
1:A:45:ALA:O	1:A:351:ILE:HA	2.20	0.42
1:A:341:THR:HG23	1:A:344:HIS:ND1	2.34	0.42
1:A:436:THR:OG1	1:A:437:PRO:HD3	2.19	0.42
1:A:613:GLY:HA2	2:A:4000:FMN:O5'	2.19	0.42
1:A:1381:ASP:OD1	1:A:1391:SER:OG	2.22	0.42
1:A:2300:PHE:HZ	1:A:2398:LEU:HB3	1.85	0.42
1:A:2620:THR:OG1	1:A:2791:ARG:NH2	2.53	0.42
1:B:340:ILE:HD11	1:B:351:ILE:HD13	2.01	0.42
1:B:2584:ASP:O	1:B:2586:GLU:N	2.53	0.42
1:B:2911:ALA:O	1:B:2916:ARG:HB2	2.19	0.42
1:C:53:SER:HA	1:C:359:ILE:HG13	2.01	0.42
1:C:266:ALA:O	1:C:270:GLU:HG3	2.20	0.42
1:C:2246:ALA:C	1:C:2255:ARG:NH1	2.78	0.42
1:C:2294:SER:HB3	1:C:2310:LYS:HB2	2.02	0.42
1:C:2449:GLU:O	1:C:2449:GLU:CG	2.68	0.42
1:D:1380:ALA:HB1	1:D:1474:LEU:CD1	2.50	0.42
1:D:1504:ARG:HA	1:D:1505:PRO:HD2	1.93	0.42
1:D:2503:LYS:HG3	1:D:2513:TYR:HB2	2.02	0.42
1:D:2958:ASN:HD22	1:D:2976:TRP:NE1	2.18	0.42
1:E:479:LEU:HD21	1:E:485:ILE:HD11	2.02	0.42
1:E:668:THR:HG23	1:E:683:GLY:HA3	2.02	0.42
1:E:1008:VAL:CG1	1:E:1008:VAL:O	2.68	0.42
1:E:1021:LEU:HB3	1:E:1034:GLU:HG2	2.01	0.42
1:E:2244:ARG:HG2	1:E:2245:VAL:N	2.34	0.42
1:E:2958:ASN:HD22	1:E:2976:TRP:NE1	2.18	0.42
1:F:1228:VAL:HB	1:F:1311:PHE:HB2	2.02	0.42
1:F:1394:HIS:ND1	1:C:2324:LYS:NZ	2.68	0.42
1:F:2055:VAL:HG22	1:F:2194:TRP:CD1	2.55	0.42
1:F:2296:ASN:ND2	1:F:2395:THR:HG21	2.34	0.42
1:F:2297:ARG:HH22	1:F:2391:LYS:HZ3	1.66	0.42
1:F:2558:LEU:HB2	1:A:2701:LEU:HD23	2.02	0.42
1:F:2889:ILE:HG13	1:F:2922:LEU:HD13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:784:GLU:CD	1:A:816:LEU:HD21	2.44	0.42
1:A:1106:CYS:SG	1:A:1174:VAL:HG11	2.60	0.42
1:A:1317:GLY:O	1:A:1324:VAL:HG12	2.19	0.42
1:A:1703:ILE:HG22	1:A:1704:GLY:H	1.85	0.42
1:A:2405:MET:HE2	1:A:2409:ALA:HB2	2.01	0.42
1:B:393:VAL:O	1:B:395:GLU:N	2.52	0.42
1:B:669:LYS:O	1:B:682:ASN:HB3	2.20	0.42
1:B:1228:VAL:HB	1:B:1311:PHE:HB2	2.02	0.42
1:B:1380:ALA:HB1	1:B:1474:LEU:CD1	2.50	0.42
1:B:1611:ILE:HG23	1:B:1624:THR:HA	2.02	0.42
1:B:2354:SER:O	1:B:2358:GLU:HG3	2.20	0.42
1:C:2800:PHE:CZ	1:C:2812:LEU:HD13	2.55	0.42
1:D:1611:ILE:HG23	1:D:1624:THR:HA	2.02	0.41
1:D:1702:GLU:CD	1:D:1711:VAL:HG22	2.45	0.41
1:D:2800:PHE:CZ	1:D:2812:LEU:HD13	2.55	0.41
1:D:2846:ALA:O	1:D:2859:GLY:HA3	2.20	0.41
1:E:1013:THR:CG2	1:E:1014:TRP:N	2.58	0.41
1:E:1120:GLU:HA	1:E:1125:VAL:CG2	2.50	0.41
1:E:1703:ILE:HG22	1:E:1704:GLY:H	1.85	0.41
1:E:2354:SER:O	1:E:2358:GLU:HG3	2.20	0.41
1:E:2563:LEU:HD21	1:E:2567:PHE:HB2	2.02	0.41
1:E:2610:ARG:NH1	1:E:2700:LEU:HD11	2.25	0.41
1:E:2620:THR:OG1	1:E:2791:ARG:NH2	2.53	0.41
1:E:2652:ILE:HG22	1:E:3051:MET:HE1	2.01	0.41
1:F:266:ALA:O	1:F:270:GLU:HG3	2.20	0.41
1:F:1095:LEU:HD23	1:F:1098:VAL:HA	2.02	0.41
1:F:1500:LEU:HD23	1:F:1574:VAL:HG21	2.02	0.41
1:F:2958:ASN:HD22	1:F:2976:TRP:NE1	2.18	0.41
1:A:756:LEU:HD13	1:A:859:PHE:CD2	2.55	0.41
1:A:885:GLU:HG2	1:A:887:ASP:H	1.84	0.41
1:A:1117:ALA:HA	1:A:1120:GLU:HB2	2.01	0.41
1:A:1687:PHE:CE1	1:A:1723:GLU:HG2	2.55	0.41
1:A:2846:ALA:O	1:A:2859:GLY:HA3	2.20	0.41
1:B:50:GLY:O	1:B:53:SER:OG	2.36	0.41
1:B:756:LEU:HD13	1:B:859:PHE:CD2	2.55	0.41
1:B:1106:CYS:SG	1:B:1174:VAL:HG11	2.60	0.41
1:B:1687:PHE:CE1	1:B:1723:GLU:HG2	2.55	0.41
1:B:2286:ARG:HD3	1:B:2331:SER:OG	2.20	0.41
1:B:3065:PRO:O	1:B:3069:GLN:N	2.42	0.41
1:C:107:LEU:HD13	1:C:113:VAL:HB	2.01	0.41
1:C:160:GLN:HA	1:C:329:ILE:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:668:THR:HG23	1:C:683:GLY:HA3	2.02	0.41
1:C:1228:VAL:HB	1:C:1311:PHE:HB2	2.02	0.41
1:C:1703:ILE:HG22	1:C:1704:GLY:H	1.85	0.41
1:C:2405:MET:HE2	1:C:2409:ALA:HB2	2.01	0.41
1:D:417:LEU:HD21	1:D:625:LEU:HD21	2.02	0.41
1:D:1070:VAL:N	1:D:1152:PHE:O	2.52	0.41
1:D:2449:GLU:O	1:D:2449:GLU:CG	2.68	0.41
1:D:2669:LEU:HD23	1:D:2831:MET:HE1	2.01	0.41
1:D:2700:LEU:HD22	1:C:2697:HIS:CD2	2.43	0.41
1:E:1228:VAL:HB	1:E:1311:PHE:HB2	2.02	0.41
1:E:1460:ALA:O	1:E:1464:VAL:HG22	2.20	0.41
1:E:1687:PHE:CE1	1:E:1723:GLU:HG2	2.55	0.41
1:E:2055:VAL:HG22	1:E:2194:TRP:CD1	2.55	0.41
1:E:2246:ALA:C	1:E:2255:ARG:NH1	2.78	0.41
1:E:2889:ILE:HB	1:E:2924:ILE:HG12	2.01	0.41
1:F:340:ILE:HD11	1:F:351:ILE:HD13	2.01	0.41
1:F:928:ALA:HB1	1:F:931:VAL:CB	2.50	0.41
1:F:2652:ILE:HG22	1:F:3051:MET:HE1	2.01	0.41
1:F:2800:PHE:CZ	1:F:2812:LEU:HD13	2.55	0.41
1:F:2989:LEU:HD12	1:F:2989:LEU:HA	1.77	0.41
1:A:393:VAL:O	1:A:395:GLU:N	2.52	0.41
1:A:1084:THR:CG2	1:A:1274:ALA:HA	2.49	0.41
1:A:1611:ILE:HG23	1:A:1624:THR:HA	2.02	0.41
1:A:1656:LYS:N	1:A:1657:PRO:HD2	2.35	0.41
1:A:2800:PHE:CE1	1:A:2812:LEU:HD22	2.50	0.41
1:B:160:GLN:HA	1:B:329:ILE:HD13	2.02	0.41
1:B:795:HIS:NE2	1:B:797:GLN:HB2	2.35	0.41
1:B:1117:ALA:HA	1:B:1120:GLU:HB2	2.01	0.41
1:B:1551:LEU:HD13	1:B:1551:LEU:HA	1.80	0.41
1:B:1702:GLU:CD	1:B:1711:VAL:HG22	2.45	0.41
1:B:1703:ILE:HG22	1:B:1704:GLY:H	1.85	0.41
1:B:1706:LYS:HA	1:B:1735:GLU:HG3	2.03	0.41
1:B:2961:LEU:HD22	1:B:2976:TRP:HD1	1.85	0.41
1:C:2300:PHE:HZ	1:C:2398:LEU:HB3	1.85	0.41
1:C:2620:THR:OG1	1:C:2791:ARG:NH2	2.53	0.41
1:D:1087:PHE:CZ	1:E:203:ASP:OD2	2.72	0.41
1:D:1095:LEU:HD23	1:D:1098:VAL:HA	2.02	0.41
1:D:1275:ALA:O	1:D:1279:VAL:HG23	2.20	0.41
1:D:1491:ASP:HB2	1:D:1495:ARG:HB2	2.02	0.41
1:D:2889:ILE:HG13	1:D:2922:LEU:HD13	2.02	0.41
1:D:2919:GLY:O	1:D:2921:PRO:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:336:TRP:HE3	1:E:339:GLU:OE2	2.03	0.41
1:E:970:ILE:O	1:E:974:THR:HG22	2.20	0.41
1:E:1611:ILE:HG23	1:E:1624:THR:HA	2.02	0.41
1:E:2013:LEU:HD23	1:E:2013:LEU:HA	1.87	0.41
1:E:2294:SER:HB3	1:E:2310:LYS:HB2	2.02	0.41
1:E:2552:ASP:OD1	1:E:2552:ASP:N	2.43	0.41
1:E:2584:ASP:O	1:E:2586:GLU:N	2.53	0.41
1:E:2737:VAL:HG11	1:B:2715:PRO:HD2	2.02	0.41
1:E:2808:ARG:HH21	1:E:2901:PRO:HD3	1.85	0.41
1:F:50:GLY:O	1:F:53:SER:OG	2.36	0.41
1:F:160:GLN:HA	1:F:329:ILE:HD13	2.02	0.41
1:F:1656:LYS:N	1:F:1657:PRO:HD2	2.35	0.41
1:F:1672:GLN:HE21	1:F:1672:GLN:HB3	1.58	0.41
1:F:2584:ASP:O	1:F:2586:GLU:N	2.53	0.41
1:F:2620:THR:OG1	1:F:2791:ARG:NH2	2.53	0.41
1:F:2702:GLY:HA3	1:A:2557:LEU:CG	2.45	0.41
1:A:266:ALA:O	1:A:270:GLU:HG3	2.20	0.41
1:A:618:PRO:HB3	1:A:915:PHE:HA	2.03	0.41
1:A:669:LYS:O	1:A:682:ASN:HB3	2.20	0.41
1:A:928:ALA:HB1	1:A:931:VAL:CB	2.50	0.41
1:A:1275:ALA:HB2	1:A:1311:PHE:CE2	2.55	0.41
1:A:2296:ASN:ND2	1:A:2395:THR:HG21	2.34	0.41
1:A:2786:ASP:OD2	1:A:2789:MET:HG2	2.19	0.41
1:A:2961:LEU:HD22	1:A:2976:TRP:HD1	1.85	0.41
1:B:78:GLU:HB2	1:B:176:VAL:HG21	2.01	0.41
1:B:266:ALA:O	1:B:270:GLU:HG3	2.20	0.41
1:B:436:THR:OG1	1:B:437:PRO:HD3	2.19	0.41
1:B:475:LEU:HA	1:B:475:LEU:HD23	1.79	0.41
1:B:1460:ALA:O	1:B:1464:VAL:HG22	2.20	0.41
1:B:1491:ASP:HB2	1:B:1495:ARG:HB2	2.02	0.41
1:B:1705:VAL:C	1:B:1735:GLU:HB2	2.45	0.41
1:B:2141:VAL:HG22	1:B:2238:PHE:HD2	1.85	0.41
1:B:2620:THR:OG1	1:B:2791:ARG:NH2	2.53	0.41
1:B:2652:ILE:HG22	1:B:3051:MET:HE1	2.01	0.41
1:B:2892:HIS:HA	1:B:2942:GLN:HE22	1.85	0.41
1:C:544:ILE:O	1:C:546:HIS:N	2.40	0.41
1:C:580:ARG:HD3	1:C:896:ALA:HB3	2.01	0.41
1:C:1008:VAL:CG2	1:C:1008:VAL:O	2.68	0.41
1:C:1070:VAL:N	1:C:1152:PHE:O	2.51	0.41
1:C:1106:CYS:SG	1:C:1174:VAL:HG11	2.60	0.41
1:C:2492:VAL:HG12	1:C:2526:ILE:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2695:MET:HG3	1:C:2696:TYR:N	2.34	0.41
1:C:2805:ASP:OD2	1:C:2807:ARG:HB2	2.20	0.41
1:C:2958:ASN:HD22	1:C:2976:TRP:NE1	2.18	0.41
1:D:1687:PHE:CE1	1:D:1723:GLU:HG2	2.55	0.41
1:D:1705:VAL:C	1:D:1735:GLU:HB2	2.45	0.41
1:D:2620:THR:OG1	1:D:2791:ARG:NH2	2.53	0.41
1:D:2710:LEU:HD12	1:D:2713:VAL:HG21	2.03	0.41
1:D:2808:ARG:HH21	1:D:2901:PRO:HD3	1.85	0.41
1:E:180:ALA:O	1:E:184:LEU:HG	2.21	0.41
1:E:202:GLY:O	1:E:289:PRO:HD2	2.21	0.41
1:E:795:HIS:NE2	1:E:797:GLN:HB2	2.35	0.41
1:E:931:VAL:HG13	1:E:934:LEU:N	2.21	0.41
1:E:1462:ALA:HB2	1:E:1468:TYR:CE1	2.56	0.41
1:E:1533:VAL:N	1:E:1543:ALA:O	2.52	0.41
1:E:2300:PHE:HZ	1:E:2398:LEU:HB3	1.85	0.41
1:E:2557:LEU:CG	1:B:2702:GLY:HA3	2.46	0.41
1:E:2669:LEU:HD23	1:E:2831:MET:HE1	2.01	0.41
1:E:2695:MET:HG3	1:E:2696:TYR:N	2.34	0.41
1:F:756:LEU:HD13	1:F:859:PHE:CD2	2.55	0.41
1:F:1038:ALA:N	1:F:1127:GLU:H	2.19	0.41
1:F:1460:ALA:O	1:F:1464:VAL:HG22	2.20	0.41
1:F:1611:ILE:HG23	1:F:1624:THR:HA	2.02	0.41
1:F:1703:ILE:HG22	1:F:1704:GLY:H	1.85	0.41
1:F:1705:VAL:C	1:F:1735:GLU:HB2	2.45	0.41
1:F:2352:ILE:HG21	1:F:2412:ALA:CB	2.51	0.41
1:A:479:LEU:HD21	1:A:485:ILE:HD11	2.02	0.41
1:A:1724:TYR:C	1:A:1726:HIS:H	2.29	0.41
1:A:2449:GLU:O	1:A:2449:GLU:CG	2.68	0.41
1:A:2686:MET:HE1	1:A:2935:LYS:HG3	2.03	0.41
1:B:957:LEU:O	1:B:1034:GLU:HB2	2.20	0.41
1:B:970:ILE:O	1:B:974:THR:HG22	2.20	0.41
1:B:2818:GLY:C	1:B:2940:VAL:HG11	2.46	0.41
1:C:587:TRP:CZ2	1:C:694:ASP:OD2	2.74	0.41
1:C:1129:LEU:HD12	1:C:1129:LEU:HA	1.92	0.41
1:C:2652:ILE:HG22	1:C:3051:MET:HE1	2.01	0.41
1:D:669:LYS:O	1:D:682:ASN:HB3	2.20	0.41
1:D:928:ALA:HB1	1:D:931:VAL:CB	2.50	0.41
1:D:2096:VAL:CG1	1:D:2097:ALA:N	2.82	0.41
1:D:2141:VAL:HG22	1:D:2238:PHE:CD2	2.56	0.41
1:D:2300:PHE:HZ	1:D:2398:LEU:HB3	1.85	0.41
1:D:2530:TYR:O	1:D:2533:ALA:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2558:LEU:HB2	1:C:2701:LEU:HD23	2.02	0.41
1:D:2584:ASP:O	1:D:2586:GLU:N	2.53	0.41
1:D:2961:LEU:HD22	1:D:2976:TRP:HD1	1.85	0.41
1:E:107:LEU:HD13	1:E:113:VAL:HB	2.02	0.41
1:E:233:LEU:HB3	1:E:251:THR:OG1	2.21	0.41
1:E:369:ARG:HD2	1:E:369:ARG:HA	1.85	0.41
1:E:436:THR:OG1	1:E:437:PRO:HD3	2.19	0.41
1:E:618:PRO:HB3	1:E:915:PHE:HA	2.02	0.41
1:E:709:LEU:HD21	1:E:872:ARG:NE	2.34	0.41
1:E:1106:CYS:SG	1:E:1174:VAL:HG11	2.60	0.41
1:E:1380:ALA:HB1	1:E:1474:LEU:CD1	2.50	0.41
1:E:1412:HIS:CD2	1:E:1413:PRO:HD2	2.49	0.41
1:E:1702:GLU:CD	1:E:1711:VAL:HG22	2.45	0.41
1:E:2014:SER:H	1:F:2591:ARG:NH1	2.19	0.41
1:E:2503:LYS:HG3	1:E:2513:TYR:HB2	2.02	0.41
1:F:45:ALA:O	1:F:351:ILE:HA	2.20	0.41
1:F:233:LEU:HB3	1:F:251:THR:OG1	2.21	0.41
1:F:1035:VAL:HB	1:F:1042:MET:HG2	2.03	0.41
1:F:2354:SER:O	1:F:2358:GLU:HG3	2.20	0.41
1:F:2449:GLU:O	1:F:2449:GLU:CG	2.68	0.41
1:F:2737:VAL:HG23	1:A:2735:HIS:O	2.21	0.41
1:F:2818:GLY:C	1:F:2940:VAL:HG11	2.46	0.41
1:A:160:GLN:HA	1:A:329:ILE:HD13	2.02	0.41
1:A:1133:VAL:N	1:A:1193:ALA:O	2.48	0.41
1:A:1491:ASP:HB2	1:A:1495:ARG:HB2	2.02	0.41
1:A:2294:SER:HB3	1:A:2310:LYS:HB2	2.02	0.41
1:A:2354:SER:O	1:A:2358:GLU:HG3	2.20	0.41
1:A:2503:LYS:HG3	1:A:2513:TYR:HB2	2.02	0.41
1:B:360:LEU:HA	1:B:363:LEU:HB3	2.03	0.41
1:B:1660:LEU:HD23	1:B:1660:LEU:HA	1.85	0.41
1:B:1724:TYR:C	1:B:1726:HIS:H	2.29	0.41
1:B:2014:SER:H	1:C:2591:ARG:NH1	2.19	0.41
1:B:2483:VAL:HG13	1:B:2954:VAL:HG11	2.03	0.41
1:B:3080:ARG:CG	1:B:3080:ARG:NH1	2.72	0.41
1:C:202:GLY:O	1:C:289:PRO:HD2	2.21	0.41
1:C:417:LEU:HD21	1:C:625:LEU:HD21	2.02	0.41
1:C:928:ALA:HB1	1:C:931:VAL:CB	2.50	0.41
1:C:957:LEU:O	1:C:1034:GLU:HB2	2.20	0.41
1:C:1275:ALA:O	1:C:1279:VAL:HG23	2.20	0.41
1:C:1400:PRO:O	1:C:1415:GLY:HA2	2.21	0.41
1:C:1634:ARG:NH1	1:C:1639:ALA:H	2.11	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1706:LYS:HA	1:C:1735:GLU:HG3	2.03	0.41
1:C:2584:ASP:O	1:C:2586:GLU:N	2.53	0.41
1:D:1237:ARG:HG2	1:D:1237:ARG:HH11	1.86	0.41
1:D:1412:HIS:HD2	1:D:1413:PRO:CD	2.31	0.41
1:D:1706:LYS:HA	1:D:1735:GLU:HG3	2.03	0.41
1:D:2492:VAL:HG12	1:D:2526:ILE:HG22	2.02	0.41
1:D:2558:LEU:HD11	1:C:2610:ARG:HD2	2.01	0.41
1:D:2591:ARG:NH1	1:F:2014:SER:H	2.18	0.41
1:D:2701:LEU:HD23	1:C:2558:LEU:HB2	2.02	0.41
1:D:2735:HIS:O	1:C:2737:VAL:HG23	2.21	0.41
1:D:2818:GLY:C	1:D:2940:VAL:HG11	2.46	0.41
1:E:266:ALA:O	1:E:270:GLU:HG3	2.20	0.41
1:E:393:VAL:O	1:E:395:GLU:N	2.52	0.41
1:E:417:LEU:HD21	1:E:625:LEU:HD21	2.02	0.41
1:E:816:LEU:HD23	1:E:816:LEU:HA	1.83	0.41
1:E:1095:LEU:HD23	1:E:1098:VAL:HA	2.02	0.41
1:E:1491:ASP:HB2	1:E:1495:ARG:HB2	2.02	0.41
1:E:2134:TYR:HB3	1:E:2189:PHE:HD2	1.85	0.41
1:E:2334:HIS:CD2	1:E:2391:LYS:HG3	2.50	0.41
1:E:2686:MET:HE1	1:E:2935:LYS:HG3	2.03	0.41
1:E:2846:ALA:O	1:E:2859:GLY:HA3	2.20	0.41
1:F:587:TRP:CZ2	1:F:694:ASP:OD2	2.74	0.41
1:F:1662:ARG:HG3	1:F:1663:LYS:N	2.34	0.41
1:F:2134:TYR:HB3	1:F:2189:PHE:HD2	1.85	0.41
1:F:2483:VAL:HG13	1:F:2954:VAL:HG11	2.03	0.41
1:F:2919:GLY:O	1:F:2921:PRO:HD3	2.21	0.41
1:A:233:LEU:HB3	1:A:251:THR:OG1	2.21	0.41
1:A:594:LEU:O	1:A:598:TYR:HB2	2.21	0.41
1:A:1095:LEU:HD23	1:A:1098:VAL:HA	2.03	0.41
1:A:1380:ALA:HB1	1:A:1474:LEU:CD1	2.50	0.41
1:A:2889:ILE:HB	1:A:2924:ILE:HG12	2.01	0.41
1:B:709:LEU:HD11	1:B:872:ARG:CZ	2.51	0.41
1:B:2205:ASP:O	1:B:2209:LEU:HB2	2.21	0.41
1:B:2891:LYS:HB2	1:B:2893:ASP:OD2	2.21	0.41
1:B:2919:GLY:O	1:B:2921:PRO:HD3	2.21	0.41
1:B:2958:ASN:HD22	1:B:2976:TRP:NE1	2.18	0.41
1:C:358:ASP:OD2	1:C:361:THR:HB	2.21	0.41
1:C:618:PRO:HB3	1:C:915:PHE:HA	2.02	0.41
1:C:795:HIS:NE2	1:C:797:GLN:HB2	2.35	0.41
1:C:1095:LEU:HD23	1:C:1098:VAL:HA	2.03	0.41
1:C:2013:LEU:HD23	1:C:2013:LEU:HA	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2710:LEU:HD12	1:C:2713:VAL:HG21	2.03	0.41
1:C:2808:ARG:HH21	1:C:2901:PRO:HD3	1.85	0.41
1:D:559:SER:O	1:D:563:ILE:HG12	2.20	0.41
1:D:756:LEU:HD13	1:D:859:PHE:CD2	2.55	0.41
1:D:1400:PRO:O	1:D:1415:GLY:HA2	2.21	0.41
1:D:1460:ALA:O	1:D:1464:VAL:HG22	2.20	0.41
1:D:2483:VAL:HG13	1:D:2954:VAL:HG11	2.03	0.41
1:D:2563:LEU:HD21	1:D:2567:PHE:HB2	2.02	0.41
1:D:2610:ARG:HD2	1:C:2558:LEU:HD11	2.02	0.41
1:E:2449:GLU:O	1:E:2449:GLU:CG	2.68	0.41
1:F:436:THR:HG22	1:F:460:GLY:HA3	2.03	0.41
1:F:1275:ALA:O	1:F:1279:VAL:HG23	2.20	0.41
1:F:2294:SER:HB3	1:F:2310:LYS:HB2	2.02	0.41
1:F:2611:VAL:HA	1:F:2612:PRO:HD3	1.86	0.41
1:F:2701:LEU:HD23	1:A:2558:LEU:HB2	2.02	0.41
1:F:2891:LYS:HB2	1:F:2893:ASP:OD2	2.21	0.41
1:A:107:LEU:HD13	1:A:113:VAL:HB	2.02	0.41
1:A:417:LEU:HD21	1:A:625:LEU:HD21	2.02	0.41
1:A:585:HIS:HB3	1:A:694:ASP:HB2	2.03	0.41
1:A:954:PRO:O	1:A:965:ASN:N	2.52	0.41
1:A:2098:THR:HG23	1:A:2099:GLN:N	2.36	0.41
1:A:2141:VAL:HG22	1:A:2238:PHE:HD2	1.85	0.41
1:A:2145:SER:O	1:A:2148:SER:OG	2.34	0.41
1:A:2892:HIS:HA	1:A:2942:GLN:HE22	1.85	0.41
1:A:2958:ASN:HD22	1:A:2976:TRP:NE1	2.18	0.41
1:B:2134:TYR:HB3	1:B:2189:PHE:HD2	1.85	0.41
1:B:2300:PHE:HZ	1:B:2398:LEU:HB3	1.85	0.41
1:B:2444:PRO:HB2	1:B:2988:PRO:HB3	2.01	0.41
1:B:2770:LEU:CB	1:B:2815:GLN:HB3	2.51	0.41
1:C:42:GLU:HA	1:C:43:PRO:HD3	1.91	0.41
1:C:1084:THR:CG2	1:C:1274:ALA:HA	2.49	0.41
1:C:1120:GLU:HA	1:C:1125:VAL:CG2	2.50	0.41
1:C:2205:ASP:O	1:C:2209:LEU:HB2	2.21	0.41
1:C:2770:LEU:CB	1:C:2815:GLN:HB3	2.51	0.41
1:C:2891:LYS:NZ	1:C:2903:GLU:HB3	2.35	0.41
1:D:594:LEU:O	1:D:598:TYR:HB2	2.21	0.41
1:D:795:HIS:NE2	1:D:797:GLN:HB2	2.35	0.41
1:D:2405:MET:O	1:D:2409:ALA:HB3	2.21	0.41
1:E:78:GLU:HB2	1:E:176:VAL:HG21	2.01	0.41
1:E:160:GLN:HA	1:E:329:ILE:HD13	2.02	0.41
1:E:278:ARG:HD2	1:E:674:TRP:CE3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1099:PRO:HB2	1:E:1295:TRP:HE1	1.86	0.41
1:E:2710:LEU:HD12	1:E:2713:VAL:HG21	2.03	0.41
1:E:2800:PHE:CZ	1:E:2812:LEU:HD13	2.55	0.41
1:E:2919:GLY:O	1:E:2921:PRO:HD3	2.21	0.41
1:F:202:GLY:O	1:F:289:PRO:HD2	2.21	0.41
1:F:438:THR:HA	1:F:880:HIS:CE1	2.51	0.41
1:F:594:LEU:O	1:F:598:TYR:HB2	2.21	0.41
1:F:669:LYS:O	1:F:682:ASN:HB3	2.20	0.41
1:F:709:LEU:HD11	1:F:872:ARG:CZ	2.51	0.41
1:F:795:HIS:NE2	1:F:797:GLN:HB2	2.35	0.41
1:F:1120:GLU:HA	1:F:1125:VAL:CG2	2.50	0.41
1:F:1291:LYS:HZ2	1:F:1346:PRO:N	2.17	0.41
1:F:1491:ASP:HB2	1:F:1495:ARG:HB2	2.02	0.41
1:F:1660:LEU:HD23	1:F:1660:LEU:HA	1.86	0.41
1:A:1120:GLU:HA	1:A:1125:VAL:CG2	2.50	0.41
1:A:1462:ALA:HB2	1:A:1468:TYR:CE1	2.56	0.41
1:A:2125:GLY:HA2	1:A:2128:ASN:CG	2.46	0.41
1:B:928:ALA:HB1	1:B:931:VAL:CB	2.50	0.41
1:B:1095:LEU:HD23	1:B:1098:VAL:HA	2.02	0.41
1:C:81:LEU:HD23	1:C:81:LEU:HA	1.88	0.41
1:C:756:LEU:HD13	1:C:859:PHE:CD2	2.55	0.41
1:C:1724:TYR:C	1:C:1726:HIS:H	2.29	0.41
1:C:2096:VAL:CG2	1:C:2097:ALA:N	2.82	0.41
1:C:2134:TYR:HB3	1:C:2189:PHE:HD2	1.85	0.41
1:C:2286:ARG:HD3	1:C:2331:SER:OG	2.20	0.41
1:C:2889:ILE:HG13	1:C:2922:LEU:HD13	2.02	0.41
1:C:2891:LYS:HB2	1:C:2893:ASP:OD2	2.21	0.41
1:D:436:THR:HG22	1:D:460:GLY:HA3	2.03	0.41
1:D:587:TRP:CZ2	1:D:694:ASP:OD2	2.74	0.41
1:D:656:THR:OG1	1:D:880:HIS:ND1	2.35	0.41
1:D:1353:PRO:HB2	1:D:1707:SER:HB2	2.03	0.41
1:D:1533:VAL:N	1:D:1543:ALA:O	2.52	0.41
1:D:1619:VAL:HA	1:D:1620:PRO:HD2	1.81	0.41
1:D:2014:SER:H	1:E:2591:ARG:NH1	2.19	0.41
1:D:2098:THR:HG23	1:D:2099:GLN:N	2.36	0.41
1:D:2205:ASP:O	1:D:2209:LEU:HB2	2.21	0.41
1:D:2422:GLU:O	1:D:2422:GLU:CG	2.69	0.41
1:D:2697:HIS:CD2	1:C:2700:LEU:HD22	2.43	0.41
1:D:2737:VAL:HG23	1:C:2735:HIS:O	2.21	0.41
1:D:3062:HIS:H	1:D:3066:GLU:HG3	1.86	0.41
1:E:594:LEU:O	1:E:598:TYR:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:669:LYS:O	1:E:682:ASN:HB3	2.20	0.41
1:E:1133:VAL:O	1:E:1193:ALA:N	2.42	0.41
1:E:1706:LYS:HA	1:E:1735:GLU:HG3	2.02	0.41
1:E:2010:GLN:OE1	1:E:2013:LEU:HD11	2.21	0.41
1:E:2286:ARG:HD3	1:E:2331:SER:OG	2.20	0.41
1:E:2483:VAL:HG13	1:E:2954:VAL:HG11	2.03	0.41
1:E:2647:VAL:HA	1:E:2650:TRP:CD1	2.53	0.41
1:E:2672:TRP:CZ3	1:E:2830:LYS:HG2	2.56	0.41
1:E:2686:MET:HE3	1:E:2686:MET:HB2	1.94	0.41
1:E:2818:GLY:C	1:E:2940:VAL:HG11	2.46	0.41
1:E:2889:ILE:HD12	1:E:2993:LEU:HD23	2.03	0.41
1:E:2891:LYS:NZ	1:E:2903:GLU:HB3	2.35	0.41
1:E:2892:HIS:HA	1:E:2942:GLN:HE22	1.85	0.41
1:E:2978:ARG:HG3	1:E:2979:GLU:HG3	2.03	0.41
1:F:180:ALA:O	1:F:184:LEU:HG	2.21	0.41
1:F:668:THR:HG23	1:F:683:GLY:HA3	2.02	0.41
1:F:2286:ARG:HD3	1:F:2331:SER:OG	2.20	0.41
1:F:2405:MET:O	1:F:2409:ALA:HB3	2.21	0.41
1:F:2563:LEU:HD21	1:F:2567:PHE:HB2	2.02	0.41
1:F:2686:MET:HE1	1:F:2935:LYS:HG3	2.03	0.41
1:F:2891:LYS:NZ	1:F:2903:GLU:C	2.79	0.41
1:F:2892:HIS:HA	1:F:2942:GLN:HE22	1.85	0.41
1:F:3057:ASP:OD1	1:F:3057:ASP:N	2.54	0.41
1:A:78:GLU:HB2	1:A:176:VAL:HG21	2.01	0.41
1:A:358:ASP:OD2	1:A:361:THR:HB	2.21	0.41
1:A:436:THR:HG22	1:A:460:GLY:HA3	2.03	0.41
1:A:795:HIS:NE2	1:A:797:GLN:HB2	2.35	0.41
1:A:1087:PHE:CD1	1:B:198:ILE:HG23	2.56	0.41
1:A:1099:PRO:HB2	1:A:1295:TRP:HE1	1.86	0.41
1:A:1228:VAL:HB	1:A:1311:PHE:HB2	2.02	0.41
1:A:1291:LYS:HZ2	1:A:1346:PRO:N	2.19	0.41
1:A:2134:TYR:HB3	1:A:2189:PHE:HD2	1.85	0.41
1:A:2584:ASP:O	1:A:2586:GLU:N	2.53	0.41
1:A:2710:LEU:HD12	1:A:2713:VAL:HG21	2.03	0.41
1:A:2770:LEU:CB	1:A:2815:GLN:HB3	2.51	0.41
1:A:2800:PHE:CZ	1:A:2812:LEU:HD13	2.55	0.41
1:A:2845:PHE:N	1:A:3003:SER:O	2.46	0.41
1:A:2919:GLY:O	1:A:2921:PRO:HD3	2.21	0.41
1:B:358:ASP:OD2	1:B:361:THR:HB	2.21	0.41
1:B:417:LEU:HD21	1:B:625:LEU:HD21	2.02	0.41
1:B:559:SER:O	1:B:563:ILE:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:747:LEU:O	1:B:751:ARG:N	2.44	0.41
1:B:954:PRO:O	1:B:965:ASN:N	2.52	0.41
1:B:1087:PHE:CD1	1:C:198:ILE:HG23	2.56	0.41
1:B:2055:VAL:HG22	1:B:2194:TRP:CD1	2.55	0.41
1:B:2405:MET:O	1:B:2409:ALA:HB3	2.21	0.41
1:B:2889:ILE:HB	1:B:2924:ILE:HG12	2.01	0.41
1:B:3062:HIS:H	1:B:3066:GLU:HG3	1.86	0.41
1:C:336:TRP:HE3	1:C:339:GLU:OE2	2.03	0.41
1:C:488:ASN:OD1	1:C:523:SER:OG	2.34	0.41
1:C:559:SER:O	1:C:563:ILE:HG12	2.20	0.41
1:C:709:LEU:HD11	1:C:872:ARG:CZ	2.51	0.41
1:C:1133:VAL:N	1:C:1193:ALA:O	2.48	0.41
1:C:1460:ALA:O	1:C:1464:VAL:HG22	2.20	0.41
1:C:1637:VAL:HA	1:C:1638:PRO:HD2	1.91	0.41
1:C:1687:PHE:CE1	1:C:1723:GLU:HG2	2.55	0.41
1:C:1719:LEU:O	1:C:1723:GLU:HB3	2.21	0.41
1:C:2098:THR:HG23	1:C:2099:GLN:N	2.36	0.41
1:C:2173:ASP:CG	1:C:2799:LYS:HZ3	2.24	0.41
1:C:2405:MET:O	1:C:2409:ALA:HB3	2.21	0.41
1:C:2530:TYR:O	1:C:2533:ALA:N	2.52	0.41
1:C:2618:SER:HB3	1:C:2786:ASP:OD1	2.21	0.41
1:C:2647:VAL:HA	1:C:2650:TRP:CD1	2.53	0.41
1:C:2961:LEU:HD22	1:C:2976:TRP:HD1	1.85	0.41
1:D:709:LEU:HD11	1:D:872:ARG:CZ	2.51	0.41
1:D:795:HIS:HE2	1:D:797:GLN:HB2	1.86	0.41
1:D:1087:PHE:CD1	1:E:198:ILE:HG23	2.56	0.41
1:D:2010:GLN:OE1	1:D:2013:LEU:HD11	2.21	0.41
1:D:2686:MET:HE1	1:D:2935:LYS:HG3	2.03	0.41
1:D:2715:PRO:HD2	1:C:2737:VAL:HG11	2.02	0.41
1:E:585:HIS:HB3	1:E:694:ASP:HB2	2.03	0.41
1:E:1237:ARG:HH11	1:E:1237:ARG:HG2	1.86	0.41
1:E:2891:LYS:NZ	1:E:2903:GLU:C	2.79	0.41
1:F:417:LEU:HD21	1:F:625:LEU:HD21	2.02	0.41
1:F:618:PRO:HB3	1:F:915:PHE:HA	2.02	0.41
1:F:795:HIS:HE2	1:F:797:GLN:HB2	1.86	0.41
1:F:1687:PHE:CE1	1:F:1723:GLU:HG2	2.55	0.41
1:F:1702:GLU:OE1	1:F:1711:VAL:HG22	2.21	0.41
1:F:2205:ASP:O	1:F:2209:LEU:HB2	2.21	0.41
1:F:2618:SER:HB3	1:F:2786:ASP:OD1	2.21	0.41
1:F:2753:LYS:HZ3	1:A:2752:ASP:CG	2.24	0.41
1:F:3062:HIS:H	1:F:3066:GLU:CG	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:202:GLY:O	1:A:289:PRO:HD2	2.21	0.41
1:A:587:TRP:CZ2	1:A:694:ASP:OD2	2.74	0.41
1:A:957:LEU:O	1:A:1034:GLU:HB2	2.20	0.41
1:A:1705:VAL:C	1:A:1735:GLU:HB2	2.45	0.41
1:A:1986:LEU:HA	1:A:1989:PHE:CD2	2.56	0.41
1:A:2014:SER:H	1:B:2591:ARG:NH1	2.19	0.41
1:A:2212:TRP:O	1:A:2229:LYS:HB3	2.21	0.41
1:A:2286:ARG:HD3	1:A:2331:SER:OG	2.20	0.41
1:A:2422:GLU:O	1:A:2422:GLU:CG	2.69	0.41
1:A:2686:MET:HE1	1:A:2935:LYS:HZ3	1.84	0.41
1:A:2818:GLY:C	1:A:2940:VAL:HG11	2.46	0.41
1:B:278:ARG:HD2	1:B:674:TRP:CE3	2.56	0.41
1:B:618:PRO:HB3	1:B:915:PHE:HA	2.02	0.41
1:B:795:HIS:HE2	1:B:797:GLN:HB2	1.86	0.41
1:B:1400:PRO:O	1:B:1415:GLY:HA2	2.21	0.41
1:B:1719:LEU:O	1:B:1723:GLU:HB3	2.21	0.41
1:B:2212:TRP:O	1:B:2229:LYS:HB3	2.21	0.41
1:C:1533:VAL:N	1:C:1543:ALA:O	2.52	0.41
1:C:2212:TRP:O	1:C:2229:LYS:HB3	2.21	0.41
1:C:2563:LEU:HD21	1:C:2567:PHE:HB2	2.02	0.41
1:C:2978:ARG:HG3	1:C:2979:GLU:HG3	2.03	0.41
1:C:3062:HIS:H	1:C:3066:GLU:HG3	1.86	0.41
1:D:488:ASN:OD1	1:D:523:SER:OG	2.34	0.40
1:D:585:HIS:HD2	1:D:586:SER:H	1.62	0.40
1:D:1391:SER:HB3	1:B:2282:ASP:CG	2.46	0.40
1:D:2282:ASP:CG	1:B:1391:SER:HB3	2.46	0.40
1:D:2752:ASP:CG	1:C:2753:LYS:HZ3	2.29	0.40
1:D:2753:LYS:HZ3	1:C:2752:ASP:CG	2.28	0.40
1:E:336:TRP:HE1	1:E:364:THR:HG22	1.86	0.40
1:E:587:TRP:CZ2	1:E:694:ASP:OD2	2.74	0.40
1:E:709:LEU:HD11	1:E:872:ARG:CZ	2.51	0.40
1:E:756:LEU:HD13	1:E:859:PHE:CD2	2.55	0.40
1:E:1504:ARG:HA	1:E:1505:PRO:HD2	1.94	0.40
1:E:2141:VAL:HG22	1:E:2238:PHE:CD2	2.56	0.40
1:E:2715:PRO:HD2	1:B:2737:VAL:HG11	2.02	0.40
1:E:2735:HIS:O	1:B:2737:VAL:HG23	2.21	0.40
1:F:1462:ALA:HB2	1:F:1468:TYR:CE1	2.56	0.40
1:F:2503:LYS:HG3	1:F:2513:TYR:HB2	2.02	0.40
1:F:2735:HIS:O	1:A:2737:VAL:HG23	2.21	0.40
1:A:163:LEU:HD21	1:A:181:LEU:HB3	2.04	0.40
1:A:180:ALA:O	1:A:184:LEU:HG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:487:PHE:O	1:A:521:VAL:N	2.51	0.40
1:A:2652:ILE:HG22	1:A:3051:MET:HE1	2.01	0.40
1:A:2889:ILE:HD12	1:A:2993:LEU:HD23	2.03	0.40
1:A:2891:LYS:NZ	1:A:2903:GLU:C	2.79	0.40
1:B:1017:ILE:HG12	1:B:1045:VAL:HG11	2.03	0.40
1:B:1099:PRO:HB2	1:B:1295:TRP:HE1	1.86	0.40
1:B:1237:ARG:HG2	1:B:1237:ARG:HH11	1.86	0.40
1:B:1702:GLU:OE1	1:B:1711:VAL:HG22	2.22	0.40
1:B:2808:ARG:HH21	1:B:2901:PRO:HD3	1.85	0.40
1:C:133:GLN:O	1:C:137:VAL:HG23	2.21	0.40
1:C:1353:PRO:HB2	1:C:1707:SER:HB2	2.04	0.40
1:C:1491:ASP:HB2	1:C:1495:ARG:HB2	2.02	0.40
1:C:1606:ASP:HA	1:C:1607:PRO:HD3	1.95	0.40
1:C:2125:GLY:HA2	1:C:2128:ASN:CG	2.46	0.40
1:C:2346:MET:O	1:C:2349:ASN:N	2.55	0.40
1:C:2672:TRP:CZ3	1:C:2830:LYS:HG2	2.56	0.40
1:C:2889:ILE:HD12	1:C:2993:LEU:HD23	2.03	0.40
1:C:2891:LYS:NZ	1:C:2903:GLU:C	2.79	0.40
1:D:618:PRO:HB3	1:D:915:PHE:HA	2.02	0.40
1:D:1719:LEU:O	1:D:1723:GLU:HB3	2.21	0.40
1:D:2125:GLY:HA2	1:D:2128:ASN:CG	2.46	0.40
1:E:273:ARG:HD2	1:E:282:VAL:CG1	2.51	0.40
1:E:358:ASP:OD2	1:E:361:THR:HB	2.21	0.40
1:E:1400:PRO:O	1:E:1415:GLY:HA2	2.21	0.40
1:E:2492:VAL:HG12	1:E:2526:ILE:HG22	2.02	0.40
1:E:2737:VAL:HG23	1:B:2735:HIS:O	2.21	0.40
1:E:2865:ARG:HD2	1:B:2674:HIS:NE2	2.37	0.40
1:E:2961:LEU:HD22	1:E:2976:TRP:HD1	1.85	0.40
1:F:1237:ARG:HG2	1:F:1237:ARG:HH11	1.86	0.40
1:F:1271:LEU:HB3	1:F:1337:MET:SD	2.62	0.40
1:F:1719:LEU:O	1:F:1723:GLU:HB3	2.22	0.40
1:F:2141:VAL:HG22	1:F:2238:PHE:CD2	2.56	0.40
1:A:142:ARG:HD3	1:A:142:ARG:HA	1.91	0.40
1:A:1702:GLU:OE1	1:A:1711:VAL:HG22	2.22	0.40
1:A:2346:MET:O	1:A:2349:ASN:N	2.55	0.40
1:A:2405:MET:O	1:A:2409:ALA:HB3	2.21	0.40
1:A:2483:VAL:HG13	1:A:2954:VAL:HG11	2.03	0.40
1:A:2672:TRP:CZ3	1:A:2830:LYS:HG2	2.56	0.40
1:B:273:ARG:HD2	1:B:282:VAL:CG1	2.51	0.40
1:B:1008:VAL:CG2	1:B:1008:VAL:O	2.67	0.40
1:B:1095:LEU:HD13	1:B:1289:PRO:CB	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2689:MET:HE2	1:B:2689:MET:HB3	2.01	0.40
1:C:1462:ALA:HB2	1:C:1468:TYR:CE1	2.56	0.40
1:C:2260:MET:HE2	1:C:2260:MET:HB3	1.99	0.40
1:C:2686:MET:HE1	1:C:2935:LYS:HG3	2.03	0.40
1:C:2891:LYS:HZ2	1:C:2903:GLU:HG2	1.86	0.40
1:C:2919:GLY:O	1:C:2921:PRO:HD3	2.21	0.40
1:D:408:VAL:HG23	1:D:418:GLU:HB2	2.03	0.40
1:D:1008:VAL:O	1:D:1008:VAL:CG1	2.67	0.40
1:D:1616:PRO:HG2	1:D:1619:VAL:HB	2.04	0.40
1:D:1724:TYR:C	1:D:1726:HIS:H	2.29	0.40
1:D:2574:GLU:HG3	1:D:2599:TRP:CE2	2.57	0.40
1:D:2961:LEU:HD13	1:D:2976:TRP:CD1	2.57	0.40
1:D:2978:ARG:HG3	1:D:2979:GLU:HG3	2.03	0.40
1:E:278:ARG:HD2	1:E:674:TRP:HE3	1.87	0.40
1:E:360:LEU:HA	1:E:363:LEU:HB3	2.03	0.40
1:E:795:HIS:HE2	1:E:797:GLN:HB2	1.86	0.40
1:E:1271:LEU:HB3	1:E:1337:MET:SD	2.62	0.40
1:E:2555:SER:HA	1:E:2556:PRO:HD2	1.85	0.40
1:E:2697:HIS:CD2	1:B:2700:LEU:HD22	2.43	0.40
1:F:360:LEU:HA	1:F:363:LEU:HB3	2.03	0.40
1:F:428:SER:HA	1:F:429:PRO:HD3	1.94	0.40
1:F:839:HIS:HA	1:F:840:PRO:HD3	1.99	0.40
1:F:956:VAL:HA	1:F:1034:GLU:OE1	2.20	0.40
1:F:1616:PRO:HG2	1:F:1619:VAL:HB	2.04	0.40
1:F:2737:VAL:HG11	1:A:2715:PRO:HD2	2.02	0.40
1:F:3062:HIS:H	1:F:3066:GLU:HG3	1.86	0.40
1:A:381:ARG:O	1:A:385:ARG:HG3	2.22	0.40
1:A:794:LEU:HD12	1:A:830:TYR:HB3	2.04	0.40
1:A:1400:PRO:O	1:A:1415:GLY:HA2	2.21	0.40
1:A:1706:LYS:HA	1:A:1735:GLU:HG3	2.03	0.40
1:A:2492:VAL:HG12	1:A:2526:ILE:HG22	2.02	0.40
1:A:2503:LYS:HE2	1:A:2514:ASP:O	2.22	0.40
1:A:2557:LEU:HD23	1:A:2558:LEU:N	2.37	0.40
1:B:587:TRP:CZ2	1:B:694:ASP:OD2	2.74	0.40
1:B:594:LEU:O	1:B:598:TYR:HB2	2.21	0.40
1:B:1070:VAL:N	1:B:1152:PHE:O	2.52	0.40
1:B:1399:ASN:HA	1:B:1400:PRO:HD3	1.86	0.40
1:B:1598:GLU:HG2	1:B:1666:ILE:HG21	2.04	0.40
1:B:2422:GLU:O	1:B:2422:GLU:CG	2.69	0.40
1:B:2891:LYS:NZ	1:B:2903:GLU:C	2.79	0.40
1:B:2961:LEU:HD13	1:B:2976:TRP:CD1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:233:LEU:HB3	1:C:251:THR:OG1	2.21	0.40
1:C:278:ARG:HD2	1:C:674:TRP:HE3	1.87	0.40
1:C:1611:ILE:HG23	1:C:1624:THR:HA	2.02	0.40
1:C:2141:VAL:HG22	1:C:2238:PHE:CD2	2.56	0.40
1:C:3057:ASP:N	1:C:3057:ASP:OD1	2.54	0.40
1:D:1462:ALA:HB2	1:D:1468:TYR:CE1	2.56	0.40
1:D:1580:PRO:O	1:D:1583:SER:OG	2.23	0.40
1:D:1656:LYS:HE2	1:D:1660:LEU:HD21	2.03	0.40
1:D:3057:ASP:OD1	1:D:3057:ASP:N	2.54	0.40
1:E:163:LEU:HD21	1:E:181:LEU:HB3	2.04	0.40
1:E:794:LEU:HD12	1:E:830:TYR:HB3	2.04	0.40
1:E:1719:LEU:O	1:E:1723:GLU:HB3	2.21	0.40
1:E:2098:THR:HG23	1:E:2099:GLN:N	2.36	0.40
1:E:2495:LEU:HD23	1:E:2495:LEU:HA	1.89	0.40
1:E:2557:LEU:HD23	1:E:2558:LEU:N	2.37	0.40
1:E:2574:GLU:HG3	1:E:2599:TRP:CE2	2.57	0.40
1:E:2583:PHE:HB2	1:B:2614:LYS:HZ2	1.87	0.40
1:E:2689:MET:HE2	1:E:2689:MET:HB3	2.01	0.40
1:F:336:TRP:HE1	1:F:364:THR:HG22	1.86	0.40
1:F:959:ALA:CB	1:F:1127:GLU:N	2.74	0.40
1:F:1095:LEU:HD13	1:F:1289:PRO:CB	2.52	0.40
1:F:1400:PRO:O	1:F:1415:GLY:HA2	2.21	0.40
1:F:2010:GLN:OE1	1:F:2013:LEU:HD11	2.21	0.40
1:F:2145:SER:O	1:F:2148:SER:OG	2.34	0.40
1:F:2212:TRP:O	1:F:2229:LYS:HB3	2.21	0.40
1:F:2346:MET:O	1:F:2349:ASN:N	2.55	0.40
1:F:2352:ILE:HG21	1:F:2412:ALA:HB2	2.04	0.40
1:F:2422:GLU:O	1:F:2422:GLU:CG	2.69	0.40
1:F:2503:LYS:HE2	1:F:2514:ASP:O	2.22	0.40
1:A:133:GLN:O	1:A:137:VAL:HG23	2.21	0.40
1:A:198:ILE:HG23	1:C:1087:PHE:CD1	2.56	0.40
1:A:260:LEU:HD13	1:C:1725:SER:CB	2.51	0.40
1:A:1237:ARG:HH11	1:A:1237:ARG:HG2	1.86	0.40
1:A:1504:ARG:HA	1:A:1505:PRO:HD2	1.93	0.40
1:A:1535:PHE:O	1:A:1679:TRP:N	2.48	0.40
1:A:2299:MET:H	1:A:2299:MET:HG2	1.68	0.40
1:A:2891:LYS:HB2	1:A:2893:ASP:OD2	2.21	0.40
1:A:2978:ARG:HG3	1:A:2979:GLU:HG3	2.03	0.40
1:B:233:LEU:HB3	1:B:251:THR:OG1	2.21	0.40
1:B:2346:MET:O	1:B:2349:ASN:N	2.55	0.40
1:B:2618:SER:HB3	1:B:2786:ASP:OD1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2645:ASP:CG	1:B:2690:THR:HB	2.47	0.40
1:B:2647:VAL:HA	1:B:2650:TRP:CD1	2.53	0.40
1:B:2672:TRP:CZ3	1:B:2830:LYS:HG2	2.56	0.40
1:B:3062:HIS:H	1:B:3066:GLU:CG	2.34	0.40
1:C:273:ARG:HD2	1:C:282:VAL:CG1	2.51	0.40
1:C:669:LYS:O	1:C:682:ASN:HB3	2.20	0.40
1:C:1095:LEU:HD13	1:C:1289:PRO:CB	2.52	0.40
1:C:1360:LYS:HD2	1:C:1398:ASP:HA	2.04	0.40
1:C:1629:PHE:O	1:C:1633:ILE:HG13	2.22	0.40
1:C:2818:GLY:C	1:C:2940:VAL:HG11	2.46	0.40
1:D:745:THR:HG22	1:D:747:LEU:N	2.37	0.40
1:D:1095:LEU:HD13	1:D:1289:PRO:CB	2.52	0.40
1:D:2697:HIS:HE1	1:D:2773:GLU:OE2	2.05	0.40
1:D:2737:VAL:HG11	1:C:2715:PRO:HD2	2.02	0.40
1:D:2843:GLN:HE22	1:C:2758:LYS:HB3	1.87	0.40
1:E:598:TYR:OH	1:E:639:PRO:O	2.30	0.40
1:E:745:THR:HG22	1:E:747:LEU:N	2.37	0.40
1:E:1535:PHE:O	1:E:1679:TRP:N	2.48	0.40
1:E:1606:ASP:HA	1:E:1607:PRO:HD3	1.95	0.40
1:E:1656:LYS:HE2	1:E:1660:LEU:HD21	2.03	0.40
1:E:2645:ASP:CG	1:E:2690:THR:HB	2.47	0.40
1:E:2674:HIS:NE2	1:B:2865:ARG:HD2	2.37	0.40
1:E:2692:MET:HE2	1:E:2692:MET:HB3	1.93	0.40
1:F:541:GLU:HG3	1:F:542:VAL:N	2.37	0.40
1:F:745:THR:HG22	1:F:747:LEU:N	2.37	0.40
1:F:1133:VAL:N	1:F:1193:ALA:O	2.48	0.40
1:F:1353:PRO:HB2	1:F:1707:SER:HB2	2.03	0.40
1:F:1399:ASN:HA	1:F:1400:PRO:HD3	1.86	0.40
1:F:2211:GLU:O	1:F:2215:THR:OG1	2.39	0.40
1:F:2645:ASP:OD2	1:F:2691:SER:HB2	2.22	0.40
1:F:2672:TRP:CZ3	1:F:2830:LYS:HG2	2.56	0.40
1:F:2770:LEU:CB	1:F:2815:GLN:HB3	2.51	0.40
1:F:2865:ARG:HD2	1:A:2674:HIS:NE2	2.37	0.40
1:F:2891:LYS:HZ2	1:F:2903:GLU:CB	2.34	0.40
1:F:2961:LEU:HD22	1:F:2976:TRP:HD1	1.85	0.40
1:A:90:LEU:HD22	1:A:93:VAL:HB	2.04	0.40
1:A:278:ARG:HD2	1:A:674:TRP:CE3	2.56	0.40
1:A:336:TRP:HE1	1:A:364:THR:HG22	1.86	0.40
1:A:1070:VAL:N	1:A:1152:PHE:O	2.52	0.40
1:A:1460:ALA:O	1:A:1464:VAL:HG22	2.20	0.40
1:A:1487:ILE:H	1:A:1487:ILE:HG12	1.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1989:PHE:O	1:A:1992:LYS:HG2	2.22	0.40
1:A:2141:VAL:HG22	1:A:2238:PHE:CD2	2.56	0.40
1:A:2686:MET:HE3	1:A:2686:MET:HB2	1.94	0.40
1:B:163:LEU:HD21	1:B:181:LEU:HB3	2.04	0.40
1:B:202:GLY:O	1:B:289:PRO:HD2	2.21	0.40
1:B:668:THR:HG23	1:B:683:GLY:HA3	2.02	0.40
1:B:1500:LEU:HD23	1:B:1574:VAL:HG21	2.03	0.40
1:B:1538:ARG:O	1:B:1542:TYR:OH	2.35	0.40
1:B:1616:PRO:HG2	1:B:1619:VAL:HB	2.04	0.40
1:B:2098:THR:HG23	1:B:2099:GLN:N	2.36	0.40
1:B:2125:GLY:HA2	1:B:2128:ASN:CG	2.46	0.40
1:B:2530:TYR:O	1:B:2533:ALA:N	2.52	0.40
1:B:2611:VAL:HA	1:B:2612:PRO:HD3	1.86	0.40
1:B:2978:ARG:HG3	1:B:2979:GLU:HG3	2.03	0.40
1:C:180:ALA:O	1:C:184:LEU:HG	2.21	0.40
1:C:436:THR:HG22	1:C:460:GLY:HA3	2.03	0.40
1:C:594:LEU:O	1:C:598:TYR:HB2	2.21	0.40
1:C:795:HIS:HE2	1:C:797:GLN:HB2	1.86	0.40
1:C:2010:GLN:OE1	1:C:2013:LEU:HD11	2.21	0.40
1:C:2422:GLU:O	1:C:2422:GLU:CG	2.69	0.40
1:C:2483:VAL:HG13	1:C:2954:VAL:HG11	2.03	0.40
1:C:2574:GLU:HG3	1:C:2599:TRP:CE2	2.57	0.40
1:C:3062:HIS:H	1:C:3066:GLU:CG	2.34	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	2818/3089 (91%)	2642 (94%)	157 (6%)	19 (1%)	18	56
1	B	2818/3089 (91%)	2642 (94%)	158 (6%)	18 (1%)	21	59

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	2818/3089 (91%)	2642 (94%)	157 (6%)	19 (1%)	18	56
1	D	2448/3089 (79%)	2293 (94%)	138 (6%)	17 (1%)	18	56
1	E	2818/3089 (91%)	2641 (94%)	159 (6%)	18 (1%)	21	59
1	F	2818/3089 (91%)	2630 (93%)	163 (6%)	25 (1%)	14	51
All	All	16538/18534 (89%)	15490 (94%)	932 (6%)	116 (1%)	20	56

All (116) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	930	PRO
1	D	1148	GLU
1	D	2428	PRO
1	D	2436	PRO
1	D	2446	PRO
1	D	2448	PRO
1	E	930	PRO
1	E	1148	GLU
1	E	2428	PRO
1	E	2436	PRO
1	E	2446	PRO
1	E	2448	PRO
1	F	930	PRO
1	F	1041	ALA
1	F	1043	ARG
1	F	1148	GLU
1	F	2428	PRO
1	F	2436	PRO
1	F	2446	PRO
1	F	2448	PRO
1	A	930	PRO
1	A	1148	GLU
1	A	2428	PRO
1	A	2436	PRO
1	A	2446	PRO
1	A	2448	PRO
1	B	930	PRO
1	B	1148	GLU
1	B	2428	PRO
1	B	2436	PRO
1	B	2446	PRO
1	B	2448	PRO

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Mol	Chain	Res	Type
1	C	930	PRO
1	C	1148	GLU
1	C	2428	PRO
1	C	2436	PRO
1	C	2446	PRO
1	C	2448	PRO
1	D	990	PRO
1	D	1009	PRO
1	E	990	PRO
1	E	1009	PRO
1	F	990	PRO
1	F	1009	PRO
1	A	990	PRO
1	A	1009	PRO
1	B	990	PRO
1	B	1009	PRO
1	C	990	PRO
1	C	1009	PRO
1	D	1724	TYR
1	E	1724	TYR
1	F	1724	TYR
1	A	1724	TYR
1	B	1652	TRP
1	B	1724	TYR
1	C	1724	TYR
1	D	1205	ASP
1	D	1652	TRP
1	D	1705	VAL
1	E	149	ALA
1	E	1205	ASP
1	E	1652	TRP
1	E	1705	VAL
1	F	149	ALA
1	F	1034	GLU
1	F	1205	ASP
1	F	1652	TRP
1	F	1705	VAL
1	A	149	ALA
1	A	1205	ASP
1	A	1652	TRP
1	A	1705	VAL
1	B	149	ALA

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Mol	Chain	Res	Type
1	B	1205	ASP
1	B	1705	VAL
1	C	149	ALA
1	C	1205	ASP
1	C	1652	TRP
1	C	1705	VAL
1	D	1221	PRO
1	D	2444	PRO
1	E	89	GLU
1	E	1221	PRO
1	E	2444	PRO
1	F	89	GLU
1	F	1038	ALA
1	F	1221	PRO
1	F	2444	PRO
1	A	89	GLU
1	A	1221	PRO
1	A	2444	PRO
1	B	89	GLU
1	B	1221	PRO
1	B	2444	PRO
1	C	89	GLU
1	C	1221	PRO
1	C	2444	PRO
1	F	959	ALA
1	F	1040	THR
1	D	1068	VAL
1	D	1285	LYS
1	E	1068	VAL
1	E	1285	LYS
1	F	1068	VAL
1	F	1285	LYS
1	A	1068	VAL
1	A	1285	LYS
1	B	1068	VAL
1	B	1285	LYS
1	C	1068	VAL
1	C	1285	LYS
1	D	2585	PRO
1	F	2585	PRO
1	A	2585	PRO
1	C	2585	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2096/2402 (87%)	1960 (94%)	136 (6%)	15	37
1	B	2096/2402 (87%)	1960 (94%)	136 (6%)	15	37
1	C	2095/2402 (87%)	1959 (94%)	136 (6%)	15	37
1	D	1808/2402 (75%)	1691 (94%)	117 (6%)	15	37
1	E	2097/2402 (87%)	1961 (94%)	136 (6%)	15	37
1	F	2097/2402 (87%)	1957 (93%)	140 (7%)	15	36
All	All	12289/14412 (85%)	11488 (94%)	801 (6%)	17	37

All (801) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	422	THR
1	D	424	LEU
1	D	436	THR
1	D	439	THR
1	D	456	GLU
1	D	517	ILE
1	D	544	ILE
1	D	580	ARG
1	D	584	HIS
1	D	595	LEU
1	D	621	SER
1	D	638	MET
1	D	641	ASP
1	D	654	GLU
1	D	694	ASP
1	D	696	HIS
1	D	745	THR
1	D	791	GLU
1	D	857	VAL
1	D	898	VAL
1	D	930	PRO
1	D	990	PRO

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Mol	Chain	Res	Type
1	D	1009	PRO
1	D	1021	LEU
1	D	1070	VAL
1	D	1083	VAL
1	D	1086	THR
1	D	1096	THR
1	D	1105	ARG
1	D	1125	VAL
1	D	1127	GLU
1	D	1162	THR
1	D	1206	PRO
1	D	1221	PRO
1	D	1228	VAL
1	D	1253	ARG
1	D	1280	THR
1	D	1358	GLN
1	D	1401	THR
1	D	1404	ILE
1	D	1416	VAL
1	D	1421	GLN
1	D	1423	THR
1	D	1467	VAL
1	D	1468	TYR
1	D	1471	GLU
1	D	1477	VAL
1	D	1488	VAL
1	D	1508	ILE
1	D	1544	ILE
1	D	1551	LEU
1	D	1564	ILE
1	D	1585	VAL
1	D	1618	LEU
1	D	1651	THR
1	D	1662	ARG
1	D	1672	GLN
1	D	1673	PHE
1	D	1699	ARG
1	D	1703	ILE
1	D	1711	VAL
1	D	1745	ASP
1	D	2007	VAL
1	D	2067	LEU

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Mol	Chain	Res	Type
1	D	2070	LEU
1	D	2129	PRO
1	D	2192	THR
1	D	2196	VAL
1	D	2209	LEU
1	D	2252	VAL
1	D	2294	SER
1	D	2299	MET
1	D	2303	ASP
1	D	2311	SER
1	D	2352	ILE
1	D	2361	VAL
1	D	2395	THR
1	D	2401	ILE
1	D	2405	MET
1	D	2428	PRO
1	D	2436	PRO
1	D	2438	PRO
1	D	2439	PRO
1	D	2444	PRO
1	D	2446	PRO
1	D	2448	PRO
1	D	2521	VAL
1	D	2549	ILE
1	D	2582	GLN
1	D	2619	ARG
1	D	2620	THR
1	D	2692	MET
1	D	2709	ILE
1	D	2742	THR
1	D	2762	VAL
1	D	2784	THR
1	D	2790	MET
1	D	2800	PHE
1	D	2802	ARG
1	D	2809	LEU
1	D	2827	LEU
1	D	2861	LEU
1	D	2871	THR
1	D	2879	LEU
1	D	2894	THR
1	D	2916	ARG

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Mol	Chain	Res	Type
1	D	2930	LEU
1	D	2935	LYS
1	D	2962	ASP
1	D	2975	VAL
1	D	2977	VAL
1	D	3001	HIS
1	D	3005	LEU
1	D	3019	ASP
1	D	3076	SER
1	D	3077	THR
1	D	3080	ARG
1	E	62	LEU
1	E	90	LEU
1	E	207	MET
1	E	208	VAL
1	E	209	SER
1	E	232	VAL
1	E	233	LEU
1	E	248	ILE
1	E	251	THR
1	E	290	VAL
1	E	342	GLU
1	E	344	HIS
1	E	358	ASP
1	E	361	THR
1	E	373	ILE
1	E	376	VAL
1	E	389	THR
1	E	390	VAL
1	E	393	VAL
1	E	422	THR
1	E	424	LEU
1	E	436	THR
1	E	439	THR
1	E	456	GLU
1	E	517	ILE
1	E	544	ILE
1	E	580	ARG
1	E	584	HIS
1	E	595	LEU
1	E	621	SER
1	E	638	MET

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Mol	Chain	Res	Type
1	E	641	ASP
1	E	654	GLU
1	E	694	ASP
1	E	696	HIS
1	E	745	THR
1	E	791	GLU
1	E	857	VAL
1	E	898	VAL
1	E	930	PRO
1	E	990	PRO
1	E	1009	PRO
1	E	1021	LEU
1	E	1070	VAL
1	E	1083	VAL
1	E	1086	THR
1	E	1096	THR
1	E	1105	ARG
1	E	1125	VAL
1	E	1127	GLU
1	E	1162	THR
1	E	1206	PRO
1	E	1221	PRO
1	E	1228	VAL
1	E	1253	ARG
1	E	1280	THR
1	E	1358	GLN
1	E	1401	THR
1	E	1404	ILE
1	E	1416	VAL
1	E	1421	GLN
1	E	1423	THR
1	E	1467	VAL
1	E	1468	TYR
1	E	1471	GLU
1	E	1477	VAL
1	E	1488	VAL
1	E	1508	ILE
1	E	1544	ILE
1	E	1551	LEU
1	E	1564	ILE
1	E	1585	VAL
1	E	1618	LEU

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Mol	Chain	Res	Type
1	E	1651	THR
1	E	1662	ARG
1	E	1672	GLN
1	E	1673	PHE
1	E	1699	ARG
1	E	1703	ILE
1	E	1711	VAL
1	E	1745	ASP
1	E	2007	VAL
1	E	2067	LEU
1	E	2070	LEU
1	E	2129	PRO
1	E	2192	THR
1	E	2196	VAL
1	E	2209	LEU
1	E	2252	VAL
1	E	2294	SER
1	E	2299	MET
1	E	2303	ASP
1	E	2311	SER
1	E	2352	ILE
1	E	2361	VAL
1	E	2395	THR
1	E	2401	ILE
1	E	2405	MET
1	E	2428	PRO
1	E	2436	PRO
1	E	2438	PRO
1	E	2439	PRO
1	E	2444	PRO
1	E	2446	PRO
1	E	2448	PRO
1	E	2521	VAL
1	E	2549	ILE
1	E	2582	GLN
1	E	2619	ARG
1	E	2620	THR
1	E	2692	MET
1	E	2709	ILE
1	E	2742	THR
1	E	2762	VAL
1	E	2784	THR

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Mol	Chain	Res	Type
1	E	2790	MET
1	E	2800	PHE
1	E	2802	ARG
1	E	2809	LEU
1	E	2827	LEU
1	E	2861	LEU
1	E	2871	THR
1	E	2879	LEU
1	E	2894	THR
1	E	2916	ARG
1	E	2930	LEU
1	E	2935	LYS
1	E	2962	ASP
1	E	2975	VAL
1	E	2977	VAL
1	E	3001	HIS
1	E	3005	LEU
1	E	3019	ASP
1	E	3076	SER
1	E	3077	THR
1	E	3080	ARG
1	F	62	LEU
1	F	90	LEU
1	F	207	MET
1	F	208	VAL
1	F	209	SER
1	F	232	VAL
1	F	233	LEU
1	F	248	ILE
1	F	251	THR
1	F	290	VAL
1	F	342	GLU
1	F	344	HIS
1	F	358	ASP
1	F	361	THR
1	F	373	ILE
1	F	376	VAL
1	F	389	THR
1	F	390	VAL
1	F	393	VAL
1	F	422	THR
1	F	424	LEU

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Mol	Chain	Res	Type
1	F	436	THR
1	F	439	THR
1	F	456	GLU
1	F	517	ILE
1	F	544	ILE
1	F	580	ARG
1	F	584	HIS
1	F	595	LEU
1	F	621	SER
1	F	638	MET
1	F	641	ASP
1	F	654	GLU
1	F	694	ASP
1	F	696	HIS
1	F	745	THR
1	F	791	GLU
1	F	857	VAL
1	F	898	VAL
1	F	930	PRO
1	F	958	TRP
1	F	990	PRO
1	F	1009	PRO
1	F	1021	LEU
1	F	1034	GLU
1	F	1035	VAL
1	F	1040	THR
1	F	1070	VAL
1	F	1083	VAL
1	F	1086	THR
1	F	1096	THR
1	F	1105	ARG
1	F	1125	VAL
1	F	1127	GLU
1	F	1162	THR
1	F	1206	PRO
1	F	1221	PRO
1	F	1228	VAL
1	F	1253	ARG
1	F	1280	THR
1	F	1358	GLN
1	F	1401	THR
1	F	1404	ILE

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Mol	Chain	Res	Type
1	F	1416	VAL
1	F	1421	GLN
1	F	1423	THR
1	F	1467	VAL
1	F	1468	TYR
1	F	1471	GLU
1	F	1477	VAL
1	F	1488	VAL
1	F	1508	ILE
1	F	1544	ILE
1	F	1551	LEU
1	F	1564	ILE
1	F	1585	VAL
1	F	1618	LEU
1	F	1651	THR
1	F	1662	ARG
1	F	1672	GLN
1	F	1673	PHE
1	F	1699	ARG
1	F	1703	ILE
1	F	1711	VAL
1	F	1745	ASP
1	F	2007	VAL
1	F	2067	LEU
1	F	2070	LEU
1	F	2129	PRO
1	F	2192	THR
1	F	2196	VAL
1	F	2209	LEU
1	F	2252	VAL
1	F	2294	SER
1	F	2299	MET
1	F	2303	ASP
1	F	2311	SER
1	F	2352	ILE
1	F	2361	VAL
1	F	2395	THR
1	F	2401	ILE
1	F	2405	MET
1	F	2428	PRO
1	F	2436	PRO
1	F	2438	PRO

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Mol	Chain	Res	Type
1	F	2439	PRO
1	F	2444	PRO
1	F	2446	PRO
1	F	2448	PRO
1	F	2521	VAL
1	F	2549	ILE
1	F	2582	GLN
1	F	2619	ARG
1	F	2620	THR
1	F	2692	MET
1	F	2709	ILE
1	F	2742	THR
1	F	2762	VAL
1	F	2784	THR
1	F	2790	MET
1	F	2800	PHE
1	F	2802	ARG
1	F	2809	LEU
1	F	2827	LEU
1	F	2861	LEU
1	F	2871	THR
1	F	2879	LEU
1	F	2894	THR
1	F	2916	ARG
1	F	2930	LEU
1	F	2935	LYS
1	F	2962	ASP
1	F	2975	VAL
1	F	2977	VAL
1	F	3001	HIS
1	F	3005	LEU
1	F	3019	ASP
1	F	3076	SER
1	F	3077	THR
1	F	3080	ARG
1	A	62	LEU
1	A	90	LEU
1	A	207	MET
1	A	208	VAL
1	A	209	SER
1	A	232	VAL
1	A	233	LEU

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Mol	Chain	Res	Type
1	A	248	ILE
1	A	251	THR
1	A	290	VAL
1	A	342	GLU
1	A	344	HIS
1	A	358	ASP
1	A	361	THR
1	A	373	ILE
1	A	376	VAL
1	A	389	THR
1	A	390	VAL
1	A	393	VAL
1	A	422	THR
1	A	424	LEU
1	A	436	THR
1	A	439	THR
1	A	456	GLU
1	A	517	ILE
1	A	544	ILE
1	A	580	ARG
1	A	584	HIS
1	A	595	LEU
1	A	621	SER
1	A	638	MET
1	A	641	ASP
1	A	654	GLU
1	A	694	ASP
1	A	696	HIS
1	A	745	THR
1	A	791	GLU
1	A	857	VAL
1	A	898	VAL
1	A	930	PRO
1	A	990	PRO
1	A	1009	PRO
1	A	1021	LEU
1	A	1070	VAL
1	A	1083	VAL
1	A	1086	THR
1	A	1096	THR
1	A	1105	ARG
1	A	1125	VAL

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Mol	Chain	Res	Type
1	A	1127	GLU
1	A	1162	THR
1	A	1206	PRO
1	A	1221	PRO
1	A	1228	VAL
1	A	1253	ARG
1	A	1280	THR
1	A	1358	GLN
1	A	1401	THR
1	A	1404	ILE
1	A	1416	VAL
1	A	1421	GLN
1	A	1423	THR
1	A	1467	VAL
1	A	1468	TYR
1	A	1471	GLU
1	A	1477	VAL
1	A	1488	VAL
1	A	1508	ILE
1	A	1544	ILE
1	A	1551	LEU
1	A	1564	ILE
1	A	1585	VAL
1	A	1618	LEU
1	A	1651	THR
1	A	1662	ARG
1	A	1672	GLN
1	A	1673	PHE
1	A	1699	ARG
1	A	1703	ILE
1	A	1711	VAL
1	A	1745	ASP
1	A	2007	VAL
1	A	2067	LEU
1	A	2070	LEU
1	A	2129	PRO
1	A	2192	THR
1	A	2196	VAL
1	A	2209	LEU
1	A	2252	VAL
1	A	2294	SER
1	A	2299	MET

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Mol	Chain	Res	Type
1	A	2303	ASP
1	A	2311	SER
1	A	2352	ILE
1	A	2361	VAL
1	A	2395	THR
1	A	2401	ILE
1	A	2405	MET
1	A	2428	PRO
1	A	2436	PRO
1	A	2438	PRO
1	A	2439	PRO
1	A	2444	PRO
1	A	2446	PRO
1	A	2448	PRO
1	A	2521	VAL
1	A	2549	ILE
1	A	2582	GLN
1	A	2619	ARG
1	A	2620	THR
1	A	2692	MET
1	A	2709	ILE
1	A	2742	THR
1	A	2762	VAL
1	A	2784	THR
1	A	2790	MET
1	A	2800	PHE
1	A	2802	ARG
1	A	2809	LEU
1	A	2827	LEU
1	A	2861	LEU
1	A	2871	THR
1	A	2879	LEU
1	A	2894	THR
1	A	2916	ARG
1	A	2930	LEU
1	A	2935	LYS
1	A	2962	ASP
1	A	2975	VAL
1	A	2977	VAL
1	A	3001	HIS
1	A	3005	LEU
1	A	3019	ASP

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Mol	Chain	Res	Type
1	A	3076	SER
1	A	3077	THR
1	A	3080	ARG
1	B	62	LEU
1	B	90	LEU
1	B	207	MET
1	B	208	VAL
1	B	209	SER
1	B	232	VAL
1	B	233	LEU
1	B	248	ILE
1	B	251	THR
1	B	290	VAL
1	B	342	GLU
1	B	344	HIS
1	B	358	ASP
1	B	361	THR
1	B	373	ILE
1	B	376	VAL
1	B	389	THR
1	B	390	VAL
1	B	393	VAL
1	B	422	THR
1	B	424	LEU
1	B	436	THR
1	B	439	THR
1	B	456	GLU
1	B	517	ILE
1	B	544	ILE
1	B	580	ARG
1	B	584	HIS
1	B	595	LEU
1	B	621	SER
1	B	638	MET
1	B	641	ASP
1	B	654	GLU
1	B	694	ASP
1	B	696	HIS
1	B	745	THR
1	B	791	GLU
1	B	857	VAL
1	B	898	VAL

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Mol	Chain	Res	Type
1	B	930	PRO
1	B	990	PRO
1	B	1009	PRO
1	B	1021	LEU
1	B	1070	VAL
1	B	1083	VAL
1	B	1086	THR
1	B	1096	THR
1	B	1105	ARG
1	B	1125	VAL
1	B	1127	GLU
1	B	1162	THR
1	B	1206	PRO
1	B	1221	PRO
1	B	1228	VAL
1	B	1253	ARG
1	B	1280	THR
1	B	1358	GLN
1	B	1401	THR
1	B	1404	ILE
1	B	1416	VAL
1	B	1421	GLN
1	B	1423	THR
1	B	1467	VAL
1	B	1468	TYR
1	B	1471	GLU
1	B	1477	VAL
1	B	1488	VAL
1	B	1508	ILE
1	B	1544	ILE
1	B	1551	LEU
1	B	1564	ILE
1	B	1585	VAL
1	B	1618	LEU
1	B	1651	THR
1	B	1662	ARG
1	B	1672	GLN
1	B	1673	PHE
1	B	1699	ARG
1	B	1703	ILE
1	B	1711	VAL
1	B	1745	ASP

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Mol	Chain	Res	Type
1	B	2007	VAL
1	B	2067	LEU
1	B	2070	LEU
1	B	2129	PRO
1	B	2192	THR
1	B	2196	VAL
1	B	2209	LEU
1	B	2252	VAL
1	B	2294	SER
1	B	2299	MET
1	B	2303	ASP
1	B	2311	SER
1	B	2352	ILE
1	B	2361	VAL
1	B	2395	THR
1	B	2401	ILE
1	B	2405	MET
1	B	2428	PRO
1	B	2436	PRO
1	B	2438	PRO
1	B	2439	PRO
1	B	2444	PRO
1	B	2446	PRO
1	B	2448	PRO
1	B	2521	VAL
1	B	2549	ILE
1	B	2582	GLN
1	B	2619	ARG
1	B	2620	THR
1	B	2692	MET
1	B	2709	ILE
1	B	2742	THR
1	B	2762	VAL
1	B	2784	THR
1	B	2790	MET
1	B	2800	PHE
1	B	2802	ARG
1	B	2809	LEU
1	B	2827	LEU
1	B	2861	LEU
1	B	2871	THR
1	B	2879	LEU

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Mol	Chain	Res	Type
1	B	2894	THR
1	B	2916	ARG
1	B	2930	LEU
1	B	2935	LYS
1	B	2962	ASP
1	B	2975	VAL
1	B	2977	VAL
1	B	3001	HIS
1	B	3005	LEU
1	B	3019	ASP
1	B	3076	SER
1	B	3077	THR
1	B	3080	ARG
1	C	62	LEU
1	C	90	LEU
1	C	207	MET
1	C	208	VAL
1	C	209	SER
1	C	232	VAL
1	C	233	LEU
1	C	248	ILE
1	C	251	THR
1	C	290	VAL
1	C	342	GLU
1	C	344	HIS
1	C	358	ASP
1	C	361	THR
1	C	373	ILE
1	C	376	VAL
1	C	389	THR
1	C	390	VAL
1	C	393	VAL
1	C	422	THR
1	C	424	LEU
1	C	436	THR
1	C	439	THR
1	C	456	GLU
1	C	517	ILE
1	C	544	ILE
1	C	580	ARG
1	C	584	HIS
1	C	595	LEU

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Mol	Chain	Res	Type
1	C	621	SER
1	C	638	MET
1	C	641	ASP
1	C	654	GLU
1	C	694	ASP
1	C	696	HIS
1	C	745	THR
1	C	791	GLU
1	C	857	VAL
1	C	898	VAL
1	C	930	PRO
1	C	990	PRO
1	C	1009	PRO
1	C	1021	LEU
1	C	1070	VAL
1	C	1083	VAL
1	C	1086	THR
1	C	1096	THR
1	C	1105	ARG
1	C	1125	VAL
1	C	1127	GLU
1	C	1162	THR
1	C	1206	PRO
1	C	1221	PRO
1	C	1228	VAL
1	C	1253	ARG
1	C	1280	THR
1	C	1358	GLN
1	C	1401	THR
1	C	1404	ILE
1	C	1416	VAL
1	C	1421	GLN
1	C	1423	THR
1	C	1467	VAL
1	C	1468	TYR
1	C	1471	GLU
1	C	1477	VAL
1	C	1488	VAL
1	C	1508	ILE
1	C	1544	ILE
1	C	1551	LEU
1	C	1564	ILE

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Mol	Chain	Res	Type
1	C	1585	VAL
1	C	1618	LEU
1	C	1651	THR
1	C	1662	ARG
1	C	1672	GLN
1	C	1673	PHE
1	C	1699	ARG
1	C	1703	ILE
1	C	1711	VAL
1	C	1745	ASP
1	C	2007	VAL
1	C	2067	LEU
1	C	2070	LEU
1	C	2129	PRO
1	C	2192	THR
1	C	2196	VAL
1	C	2209	LEU
1	C	2252	VAL
1	C	2294	SER
1	C	2299	MET
1	C	2303	ASP
1	C	2311	SER
1	C	2352	ILE
1	C	2361	VAL
1	C	2395	THR
1	C	2401	ILE
1	C	2405	MET
1	C	2428	PRO
1	C	2436	PRO
1	C	2438	PRO
1	C	2439	PRO
1	C	2444	PRO
1	C	2446	PRO
1	C	2448	PRO
1	C	2521	VAL
1	C	2549	ILE
1	C	2582	GLN
1	C	2619	ARG
1	C	2620	THR
1	C	2692	MET
1	C	2709	ILE
1	C	2742	THR

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Mol	Chain	Res	Type
1	C	2762	VAL
1	C	2784	THR
1	C	2790	MET
1	C	2800	PHE
1	C	2802	ARG
1	C	2809	LEU
1	C	2827	LEU
1	C	2861	LEU
1	C	2871	THR
1	C	2879	LEU
1	C	2894	THR
1	C	2916	ARG
1	C	2930	LEU
1	C	2935	LYS
1	C	2962	ASP
1	C	2975	VAL
1	C	2977	VAL
1	C	3001	HIS
1	C	3005	LEU
1	C	3019	ASP
1	C	3076	SER
1	C	3077	THR
1	C	3080	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (149) such sidechains are listed below:

Mol	Chain	Res	Type
1	D	486	GLN
1	D	512	GLN
1	D	540	ASN
1	D	585	HIS
1	D	606	ASN
1	D	633	HIS
1	D	1057	ASN
1	D	1134	HIS
1	D	1276	GLN
1	D	1277	HIS
1	D	1355	GLN
1	D	1421	GLN
1	D	1534	ASN
1	D	1617	ASN
1	D	1672	GLN

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Mol	Chain	Res	Type
1	D	2288	HIS
1	D	2296	ASN
1	D	2334	HIS
1	D	2587	HIS
1	D	2651	ASN
1	D	2815	GLN
1	D	2850	HIS
1	D	2927	GLN
1	D	2942	GLN
1	D	2973	HIS
1	E	486	GLN
1	E	540	ASN
1	E	585	HIS
1	E	606	ASN
1	E	633	HIS
1	E	1057	ASN
1	E	1134	HIS
1	E	1276	GLN
1	E	1277	HIS
1	E	1355	GLN
1	E	1421	GLN
1	E	1534	ASN
1	E	1617	ASN
1	E	1672	GLN
1	E	2288	HIS
1	E	2296	ASN
1	E	2334	HIS
1	E	2587	HIS
1	E	2651	ASN
1	E	2815	GLN
1	E	2850	HIS
1	E	2927	GLN
1	E	2942	GLN
1	E	2973	HIS
1	F	386	ASN
1	F	486	GLN
1	F	512	GLN
1	F	540	ASN
1	F	585	HIS
1	F	606	ASN
1	F	633	HIS
1	F	1057	ASN

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Mol	Chain	Res	Type
1	F	1134	HIS
1	F	1276	GLN
1	F	1277	HIS
1	F	1355	GLN
1	F	1394	HIS
1	F	1421	GLN
1	F	1534	ASN
1	F	1617	ASN
1	F	1672	GLN
1	F	2288	HIS
1	F	2296	ASN
1	F	2334	HIS
1	F	2587	HIS
1	F	2651	ASN
1	F	2815	GLN
1	F	2850	HIS
1	F	2927	GLN
1	F	2942	GLN
1	F	2973	HIS
1	A	486	GLN
1	A	540	ASN
1	A	585	HIS
1	A	606	ASN
1	A	633	HIS
1	A	1057	ASN
1	A	1134	HIS
1	A	1276	GLN
1	A	1277	HIS
1	A	1355	GLN
1	A	1421	GLN
1	A	1534	ASN
1	A	1617	ASN
1	A	1672	GLN
1	A	2288	HIS
1	A	2296	ASN
1	A	2334	HIS
1	A	2587	HIS
1	A	2651	ASN
1	A	2815	GLN
1	A	2850	HIS
1	A	2927	GLN
1	A	2942	GLN

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Mol	Chain	Res	Type
1	A	2973	HIS
1	B	486	GLN
1	B	540	ASN
1	B	585	HIS
1	B	606	ASN
1	B	633	HIS
1	B	1057	ASN
1	B	1134	HIS
1	B	1276	GLN
1	B	1277	HIS
1	B	1355	GLN
1	B	1421	GLN
1	B	1534	ASN
1	B	1617	ASN
1	B	1672	GLN
1	B	2288	HIS
1	B	2296	ASN
1	B	2334	HIS
1	B	2587	HIS
1	B	2651	ASN
1	B	2815	GLN
1	B	2850	HIS
1	B	2927	GLN
1	B	2942	GLN
1	B	2973	HIS
1	C	386	ASN
1	C	486	GLN
1	C	540	ASN
1	C	585	HIS
1	C	606	ASN
1	C	633	HIS
1	C	1057	ASN
1	C	1134	HIS
1	C	1276	GLN
1	C	1277	HIS
1	C	1355	GLN
1	C	1421	GLN
1	C	1534	ASN
1	C	1617	ASN
1	C	1672	GLN
1	C	2288	HIS
1	C	2296	ASN

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Mol	Chain	Res	Type
1	C	2334	HIS
1	C	2587	HIS
1	C	2651	ASN
1	C	2815	GLN
1	C	2850	HIS
1	C	2927	GLN
1	C	2942	GLN
1	C	2973	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

6 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
2	FMN	D	4000	-	33,33,33	1.04	2 (6%)	48,50,50	1.29	9 (18%)
2	FMN	C	4000	-	33,33,33	1.04	2 (6%)	48,50,50	1.29	7 (14%)
2	FMN	B	4000	-	33,33,33	1.05	2 (6%)	48,50,50	1.29	9 (18%)
2	FMN	F	4000	-	33,33,33	1.03	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	A	4000	-	33,33,33	1.04	2 (6%)	48,50,50	1.28	9 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	FMN	E	4000	-	33,33,33	1.04	2 (6%)	48,50,50	1.29	7 (14%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	FMN	D	4000	-	-	5/18/18/18	0/3/3/3
2	FMN	C	4000	-	-	5/18/18/18	0/3/3/3
2	FMN	B	4000	-	-	5/18/18/18	0/3/3/3
2	FMN	F	4000	-	-	5/18/18/18	0/3/3/3
2	FMN	A	4000	-	-	5/18/18/18	0/3/3/3
2	FMN	E	4000	-	-	5/18/18/18	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	4000	FMN	C4A-N5	3.74	1.38	1.30
2	A	4000	FMN	C4A-N5	3.70	1.38	1.30
2	E	4000	FMN	C4A-N5	3.69	1.38	1.30
2	D	4000	FMN	C4A-N5	3.67	1.38	1.30
2	F	4000	FMN	C4A-N5	3.66	1.38	1.30
2	C	4000	FMN	C4A-N5	3.66	1.38	1.30
2	C	4000	FMN	C10-N1	2.32	1.37	1.33
2	E	4000	FMN	C10-N1	2.27	1.37	1.33
2	B	4000	FMN	C10-N1	2.26	1.37	1.33
2	D	4000	FMN	C10-N1	2.25	1.37	1.33
2	A	4000	FMN	C10-N1	2.24	1.37	1.33
2	F	4000	FMN	C10-N1	2.21	1.37	1.33

All (49) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	4000	FMN	C4-N3-C2	-3.14	120.06	125.64
2	E	4000	FMN	C4-N3-C2	-3.11	120.11	125.64
2	F	4000	FMN	C4-N3-C2	-3.10	120.13	125.64
2	D	4000	FMN	C4-N3-C2	-3.08	120.17	125.64
2	B	4000	FMN	C4-N3-C2	-3.08	120.17	125.64
2	A	4000	FMN	C4-N3-C2	-3.08	120.18	125.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	4000	FMN	C4A-C10-N10	3.04	120.83	116.48
2	C	4000	FMN	C4A-C10-N10	3.02	120.80	116.48
2	B	4000	FMN	C4A-C10-N10	3.02	120.80	116.48
2	D	4000	FMN	C4A-C10-N10	2.99	120.77	116.48
2	A	4000	FMN	C4A-C10-N10	2.97	120.74	116.48
2	F	4000	FMN	C4A-C10-N10	2.94	120.69	116.48
2	E	4000	FMN	C10-C4A-N5	-2.69	119.32	124.81
2	D	4000	FMN	C10-C4A-N5	-2.66	119.37	124.81
2	B	4000	FMN	C10-C4A-N5	-2.65	119.40	124.81
2	C	4000	FMN	C10-C4A-N5	-2.63	119.43	124.81
2	A	4000	FMN	C10-C4A-N5	-2.63	119.43	124.81
2	C	4000	FMN	C4A-C4-N3	2.61	119.89	113.25
2	F	4000	FMN	C10-C4A-N5	-2.60	119.51	124.81
2	B	4000	FMN	C4A-C4-N3	2.58	119.83	113.25
2	E	4000	FMN	C4A-C4-N3	2.58	119.82	113.25
2	F	4000	FMN	C4A-C4-N3	2.57	119.78	113.25
2	D	4000	FMN	C4A-C4-N3	2.56	119.78	113.25
2	A	4000	FMN	C4A-C4-N3	2.56	119.78	113.25
2	E	4000	FMN	O4-C4-C4A	-2.42	120.15	126.53
2	D	4000	FMN	O4-C4-C4A	-2.42	120.16	126.53
2	F	4000	FMN	O4-C4-C4A	-2.41	120.16	126.53
2	C	4000	FMN	O4-C4-C4A	-2.41	120.18	126.53
2	B	4000	FMN	O4-C4-C4A	-2.40	120.19	126.53
2	A	4000	FMN	O4-C4-C4A	-2.38	120.24	126.53
2	E	4000	FMN	C4-C4A-N5	2.37	121.49	118.21
2	D	4000	FMN	C4-C4A-N5	2.37	121.48	118.21
2	B	4000	FMN	C4-C4A-N5	2.36	121.47	118.21
2	C	4000	FMN	C4-C4A-N5	2.33	121.43	118.21
2	A	4000	FMN	C4-C4A-N5	2.31	121.41	118.21
2	F	4000	FMN	C4-C4A-N5	2.30	121.39	118.21
2	D	4000	FMN	C9A-C5A-N5	-2.30	120.01	122.45
2	C	4000	FMN	C9A-C5A-N5	-2.27	120.05	122.45
2	F	4000	FMN	C9A-C5A-N5	-2.27	120.05	122.45
2	E	4000	FMN	C9A-C5A-N5	-2.25	120.07	122.45
2	A	4000	FMN	C9A-C5A-N5	-2.24	120.08	122.45
2	B	4000	FMN	C9A-C5A-N5	-2.20	120.12	122.45
2	D	4000	FMN	C5A-C9A-N10	2.07	119.84	117.97
2	F	4000	FMN	C5A-C9A-N10	2.03	119.80	117.97
2	D	4000	FMN	O2-C2-N1	-2.03	118.44	121.80
2	B	4000	FMN	O2-C2-N1	-2.02	118.45	121.80
2	A	4000	FMN	C5A-C9A-N10	2.01	119.79	117.97
2	B	4000	FMN	C5A-C9A-N10	2.01	119.78	117.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	4000	FMN	O2-C2-N1	-2.00	118.48	121.80

There are no chirality outliers.

All (30) torsion outliers are listed below:

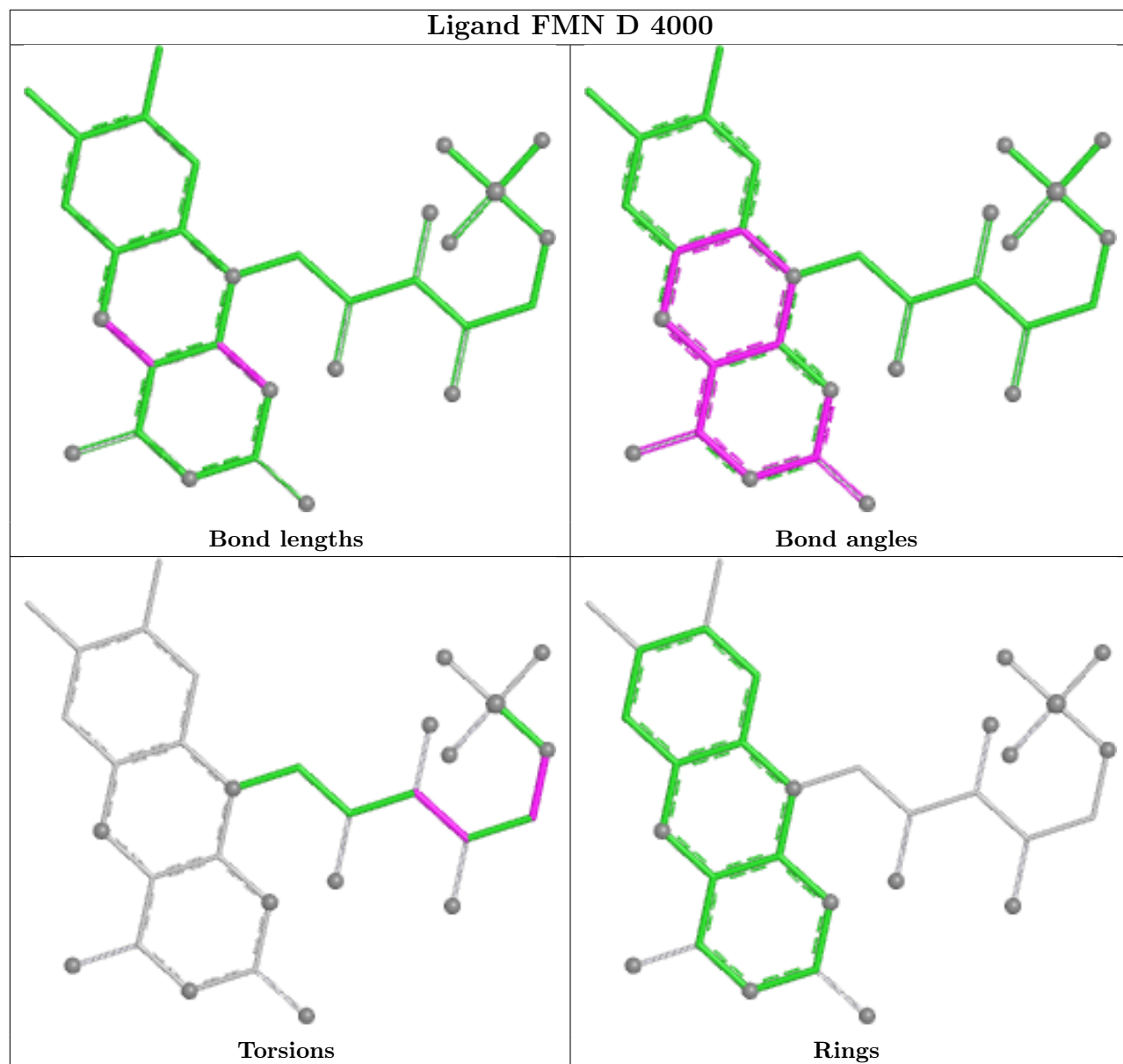
Mol	Chain	Res	Type	Atoms
2	D	4000	FMN	O3'-C3'-C4'-C5'
2	E	4000	FMN	O3'-C3'-C4'-C5'
2	F	4000	FMN	O3'-C3'-C4'-C5'
2	A	4000	FMN	O3'-C3'-C4'-C5'
2	B	4000	FMN	O3'-C3'-C4'-C5'
2	C	4000	FMN	O3'-C3'-C4'-C5'
2	D	4000	FMN	C2'-C3'-C4'-C5'
2	E	4000	FMN	C2'-C3'-C4'-C5'
2	F	4000	FMN	C2'-C3'-C4'-C5'
2	A	4000	FMN	C2'-C3'-C4'-C5'
2	B	4000	FMN	C2'-C3'-C4'-C5'
2	C	4000	FMN	C2'-C3'-C4'-C5'
2	D	4000	FMN	C2'-C3'-C4'-O4'
2	E	4000	FMN	C2'-C3'-C4'-O4'
2	F	4000	FMN	C2'-C3'-C4'-O4'
2	A	4000	FMN	C2'-C3'-C4'-O4'
2	B	4000	FMN	C2'-C3'-C4'-O4'
2	C	4000	FMN	C2'-C3'-C4'-O4'
2	D	4000	FMN	O3'-C3'-C4'-O4'
2	E	4000	FMN	O3'-C3'-C4'-O4'
2	F	4000	FMN	O3'-C3'-C4'-O4'
2	A	4000	FMN	O3'-C3'-C4'-O4'
2	B	4000	FMN	O3'-C3'-C4'-O4'
2	C	4000	FMN	O3'-C3'-C4'-O4'
2	D	4000	FMN	C4'-C5'-O5'-P
2	E	4000	FMN	C4'-C5'-O5'-P
2	F	4000	FMN	C4'-C5'-O5'-P
2	A	4000	FMN	C4'-C5'-O5'-P
2	B	4000	FMN	C4'-C5'-O5'-P
2	C	4000	FMN	C4'-C5'-O5'-P

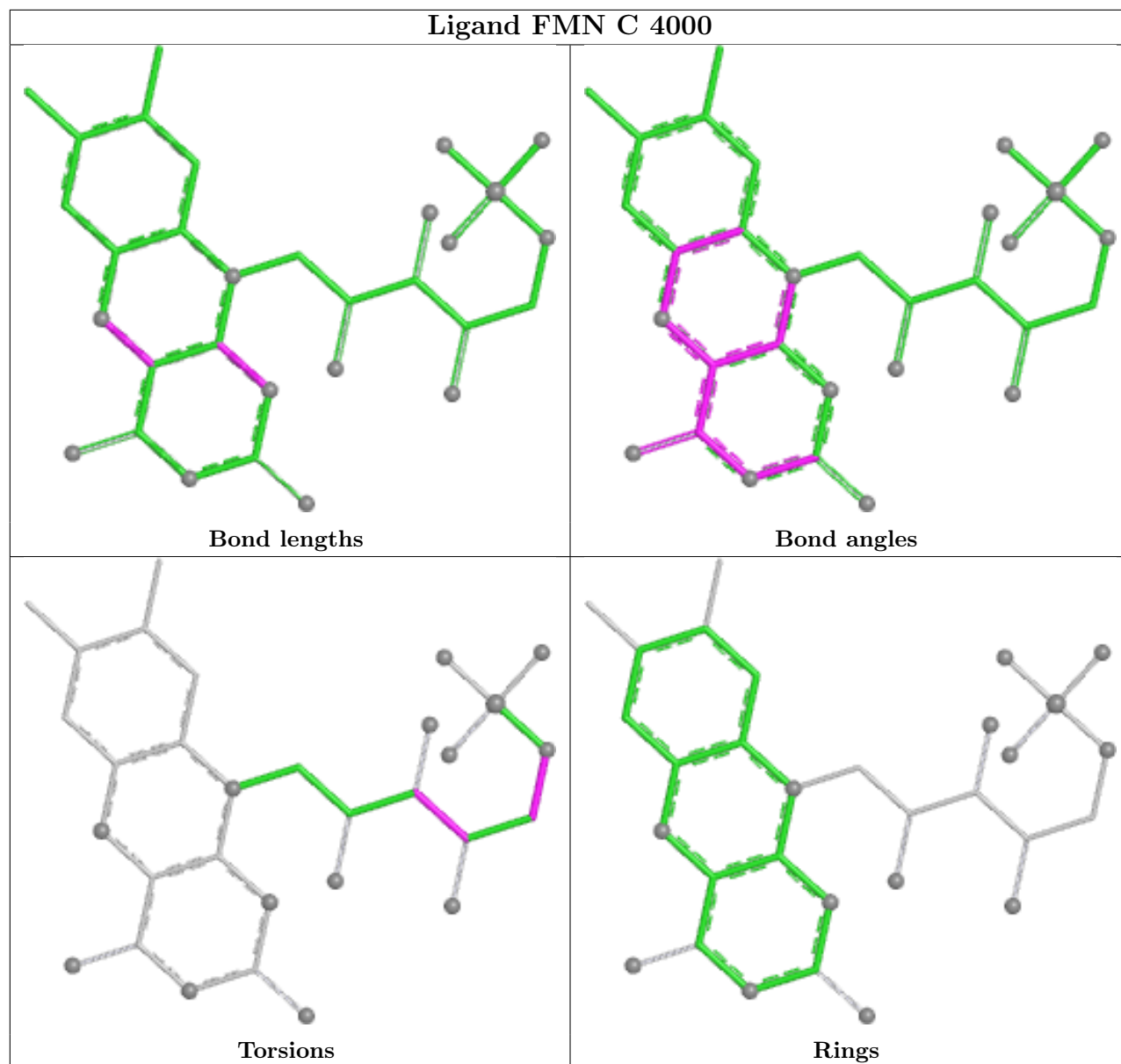
There are no ring outliers.

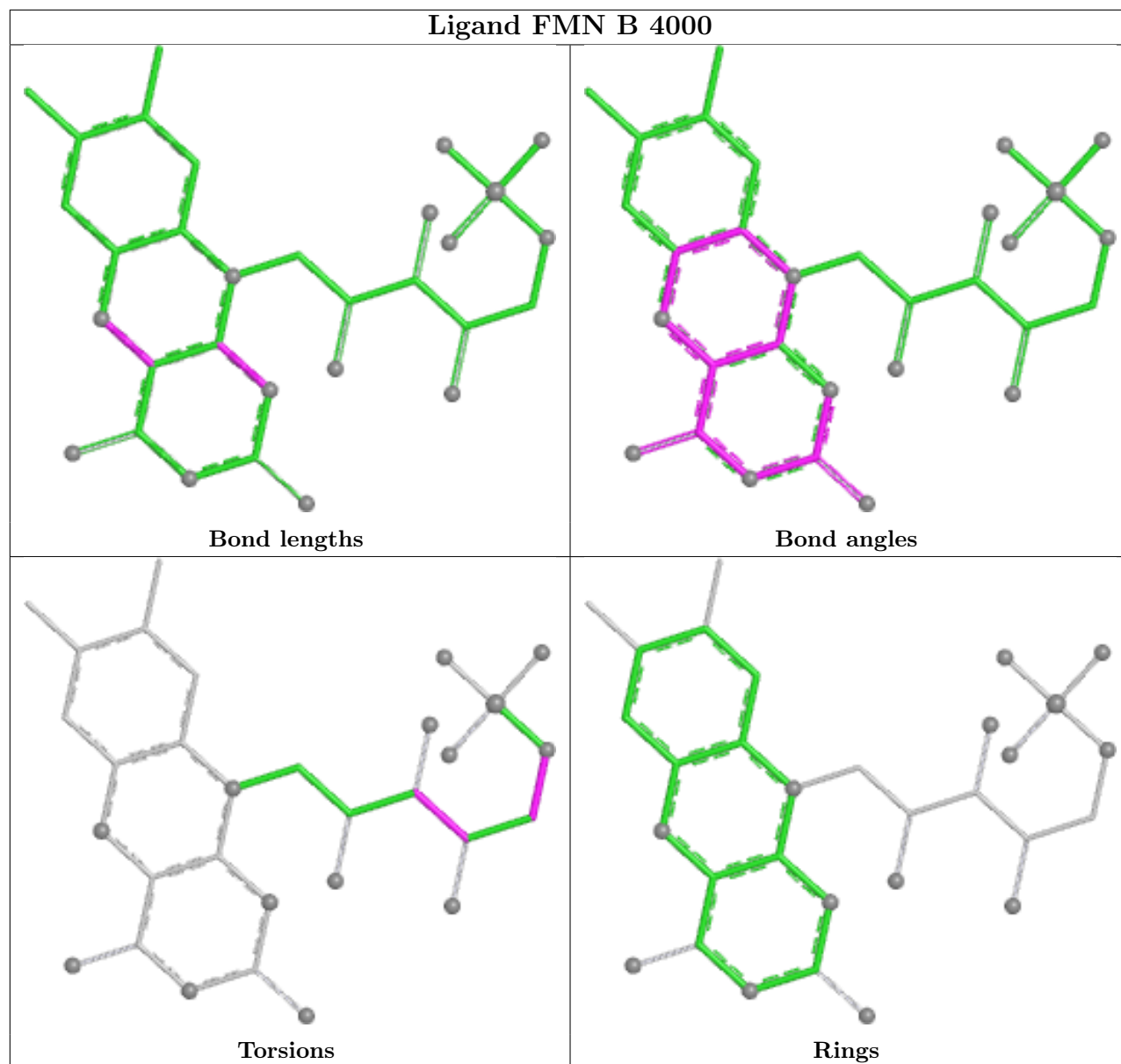
6 monomers are involved in 25 short contacts:

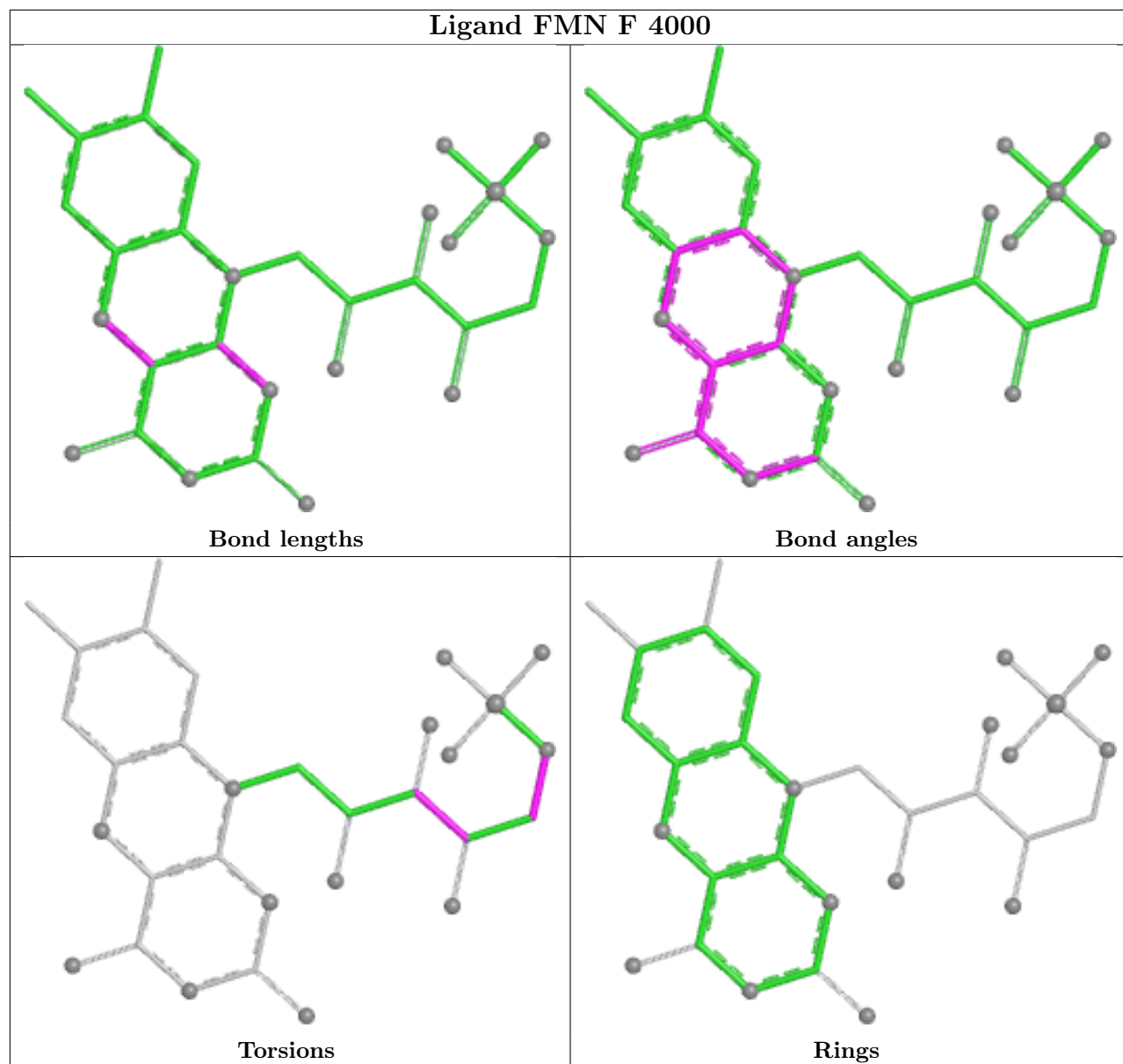
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	D	4000	FMN	4	0
2	C	4000	FMN	4	0
2	B	4000	FMN	4	0
2	F	4000	FMN	4	0
2	A	4000	FMN	5	0
2	E	4000	FMN	4	0

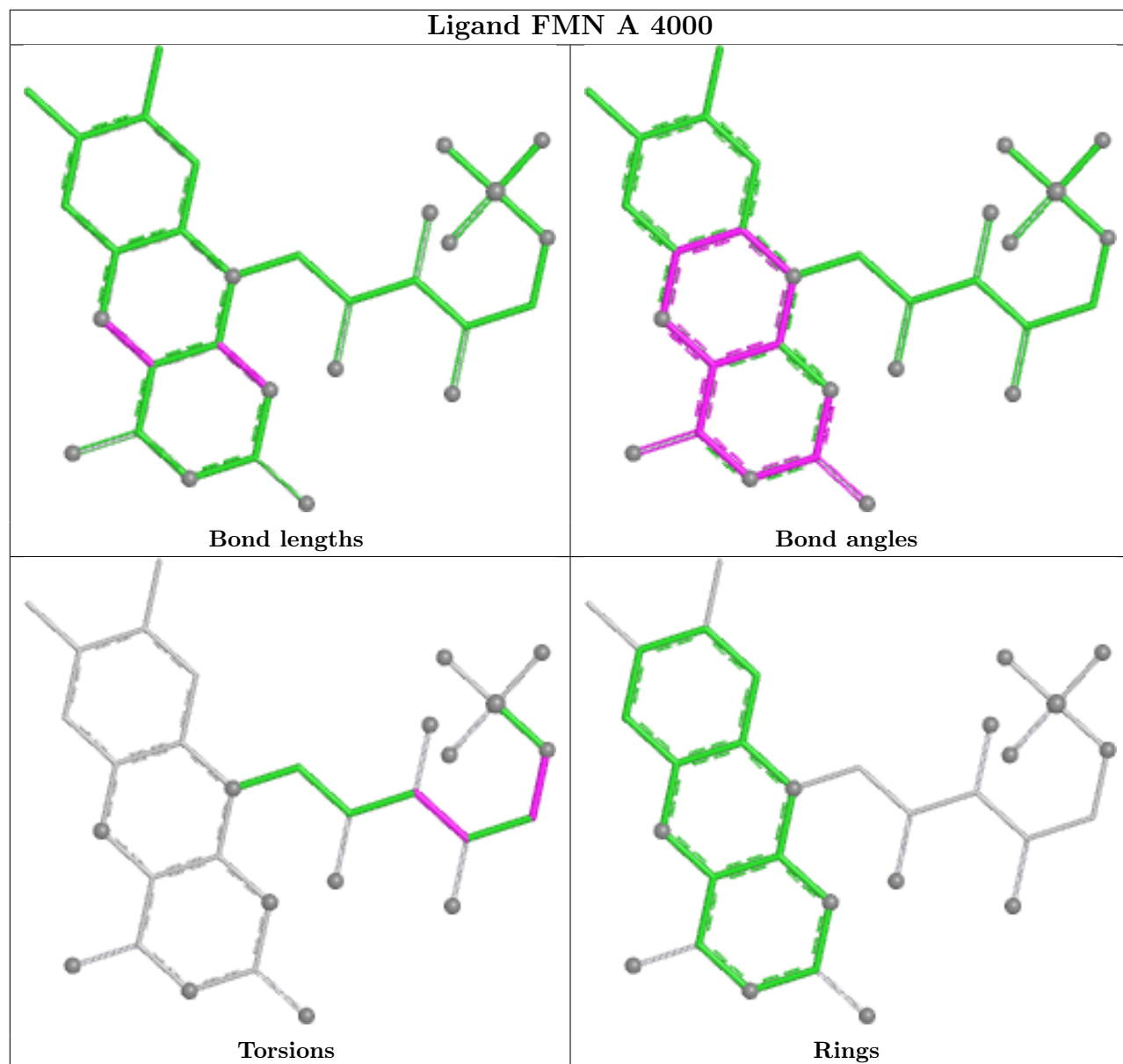
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

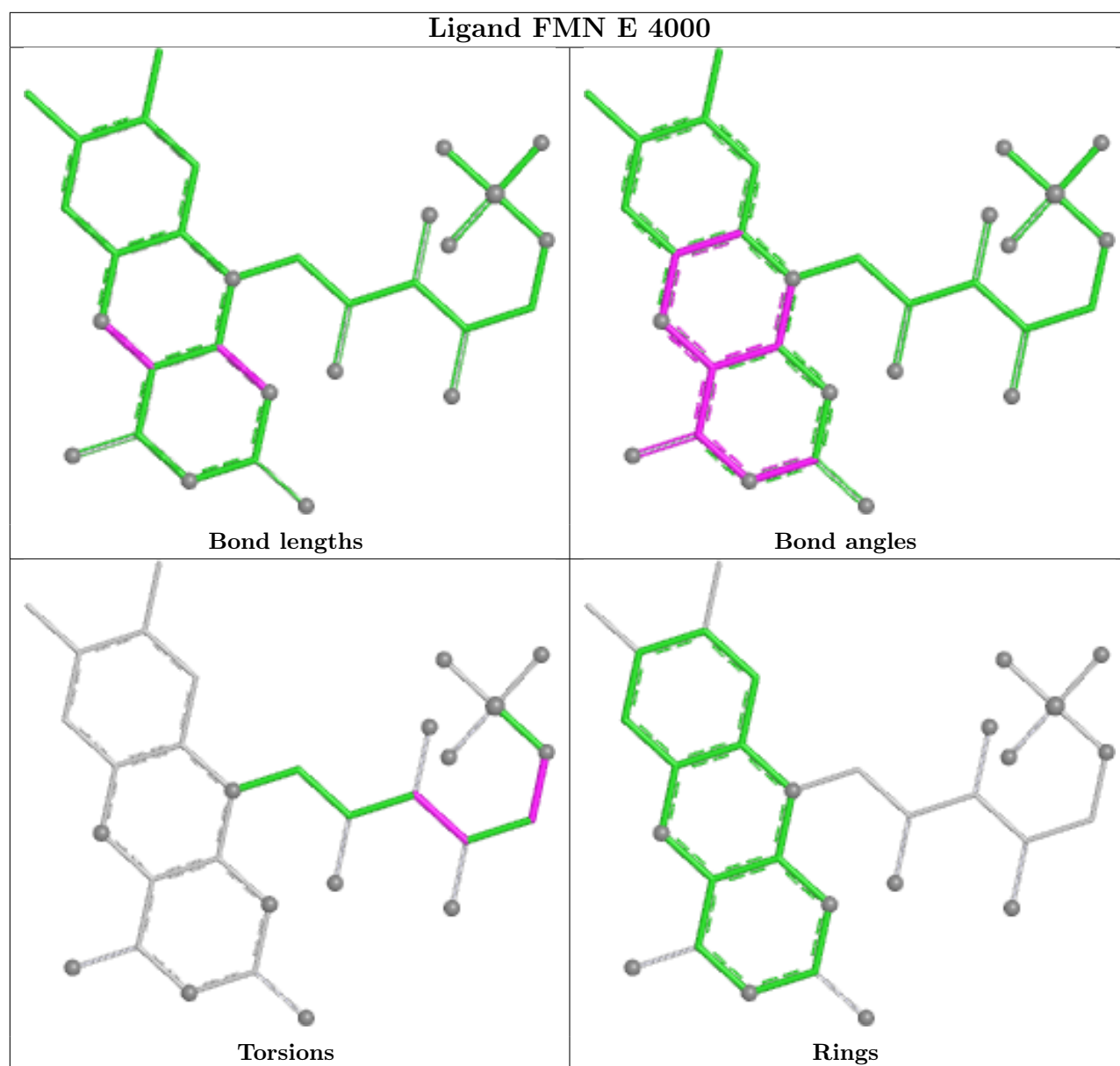












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2357. These allow visual inspection of the internal detail of the map and identification of artifacts.

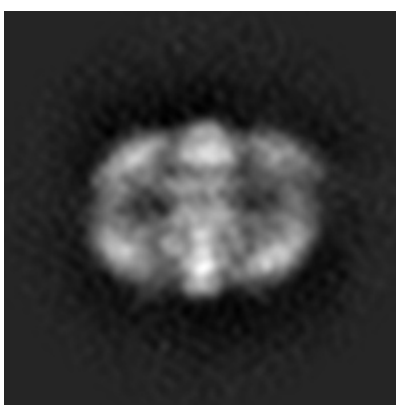
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

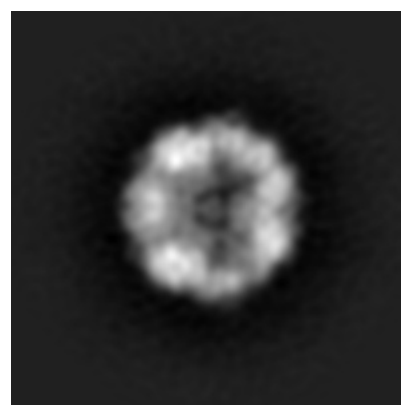
6.1.1 Primary map



X



Y

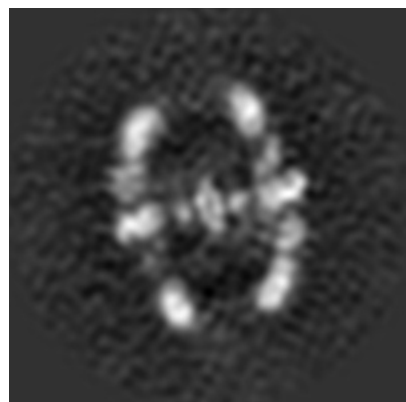


Z

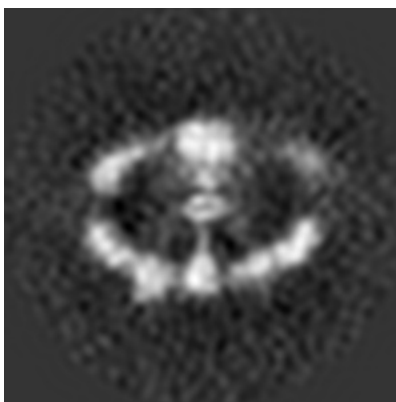
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

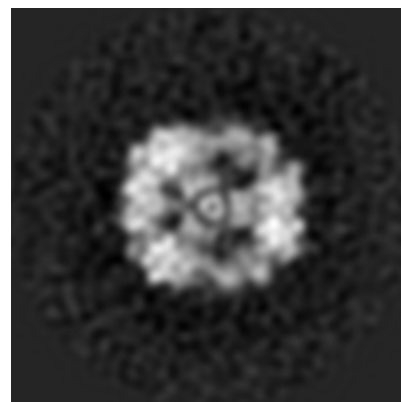
6.2.1 Primary map



X Index: 100



Y Index: 100

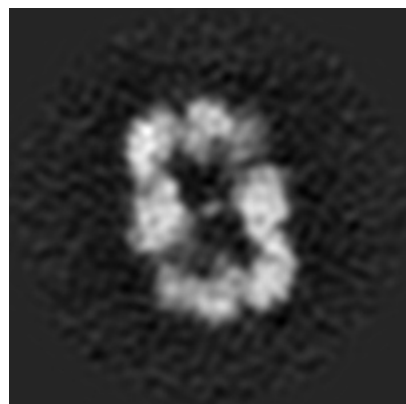


Z Index: 100

The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

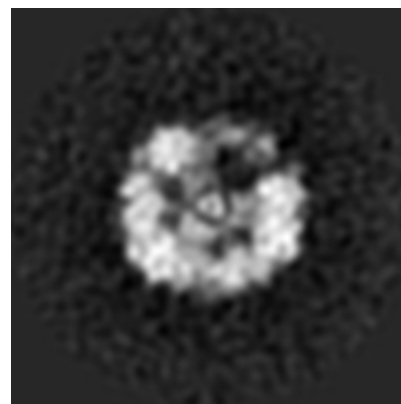
6.3.1 Primary map



X Index: 79



Y Index: 130

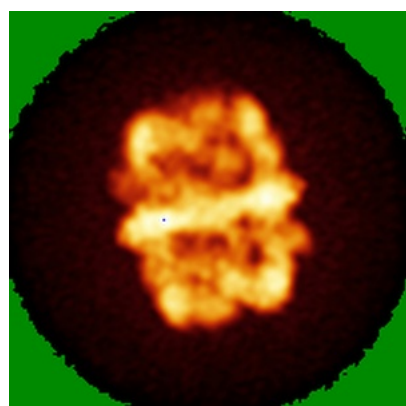


Z Index: 97

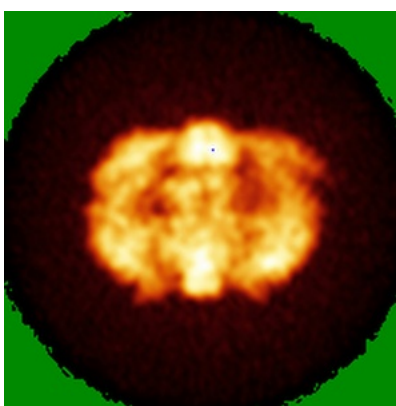
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

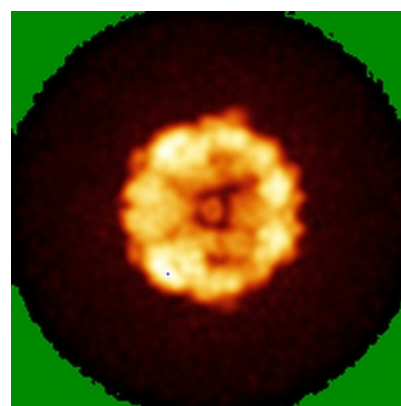
6.4.1 Primary map



X



Y

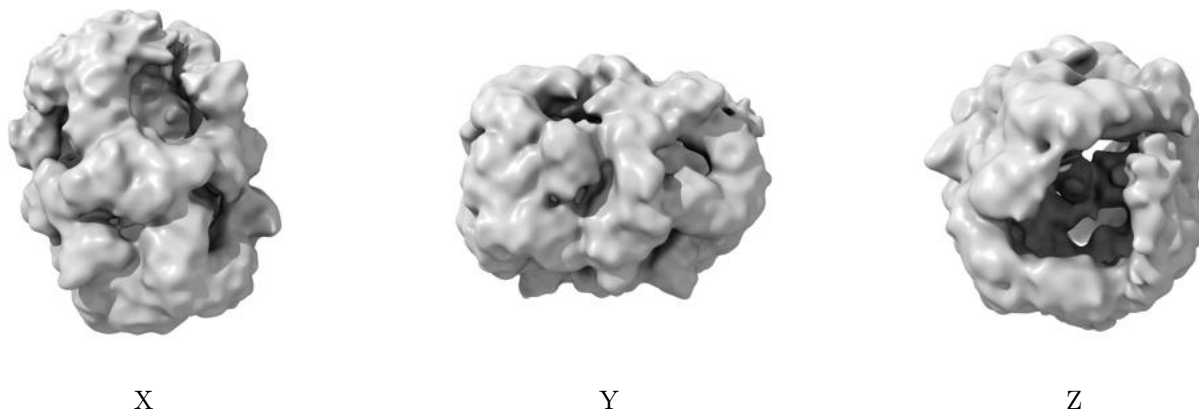


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 2.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

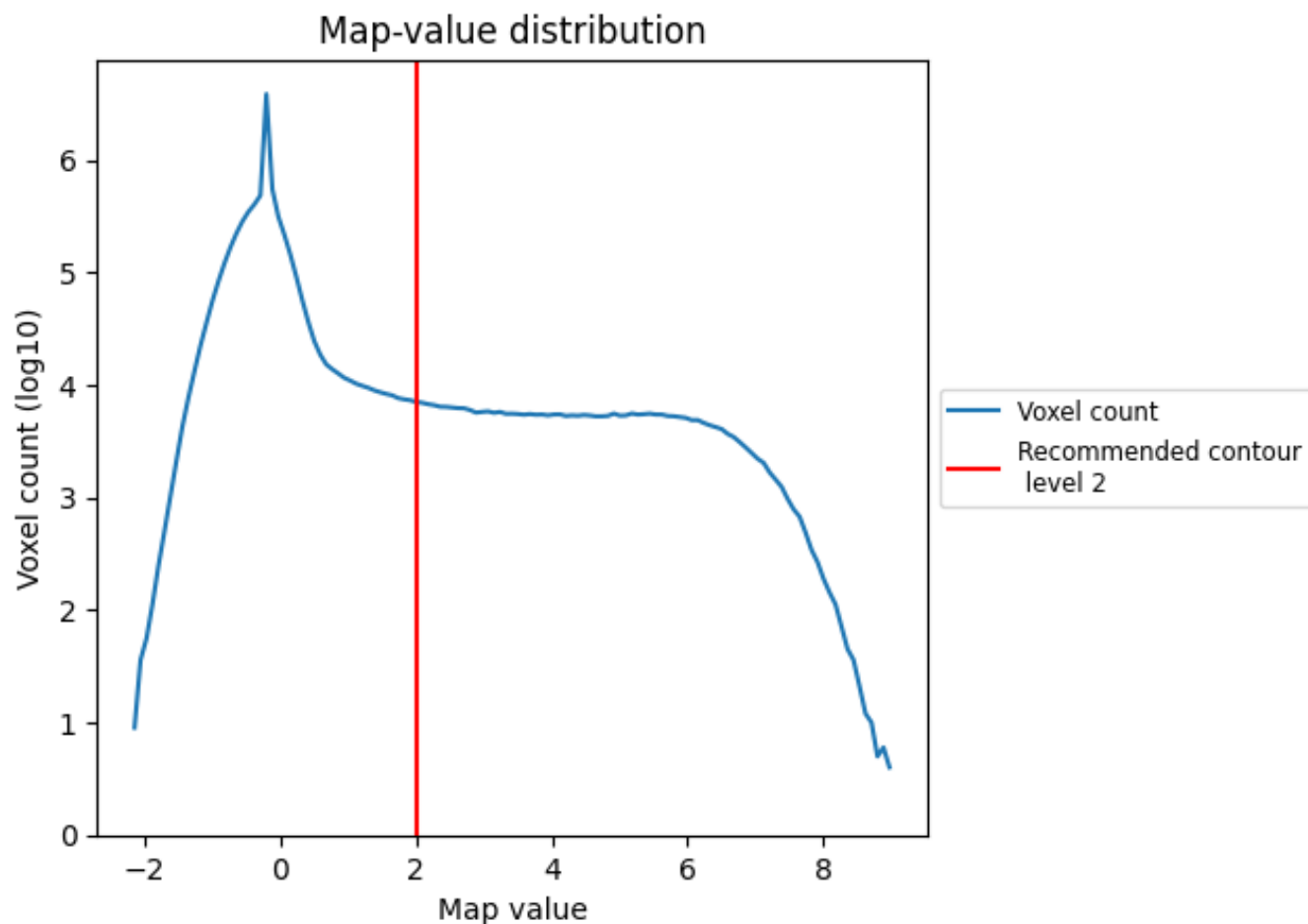
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

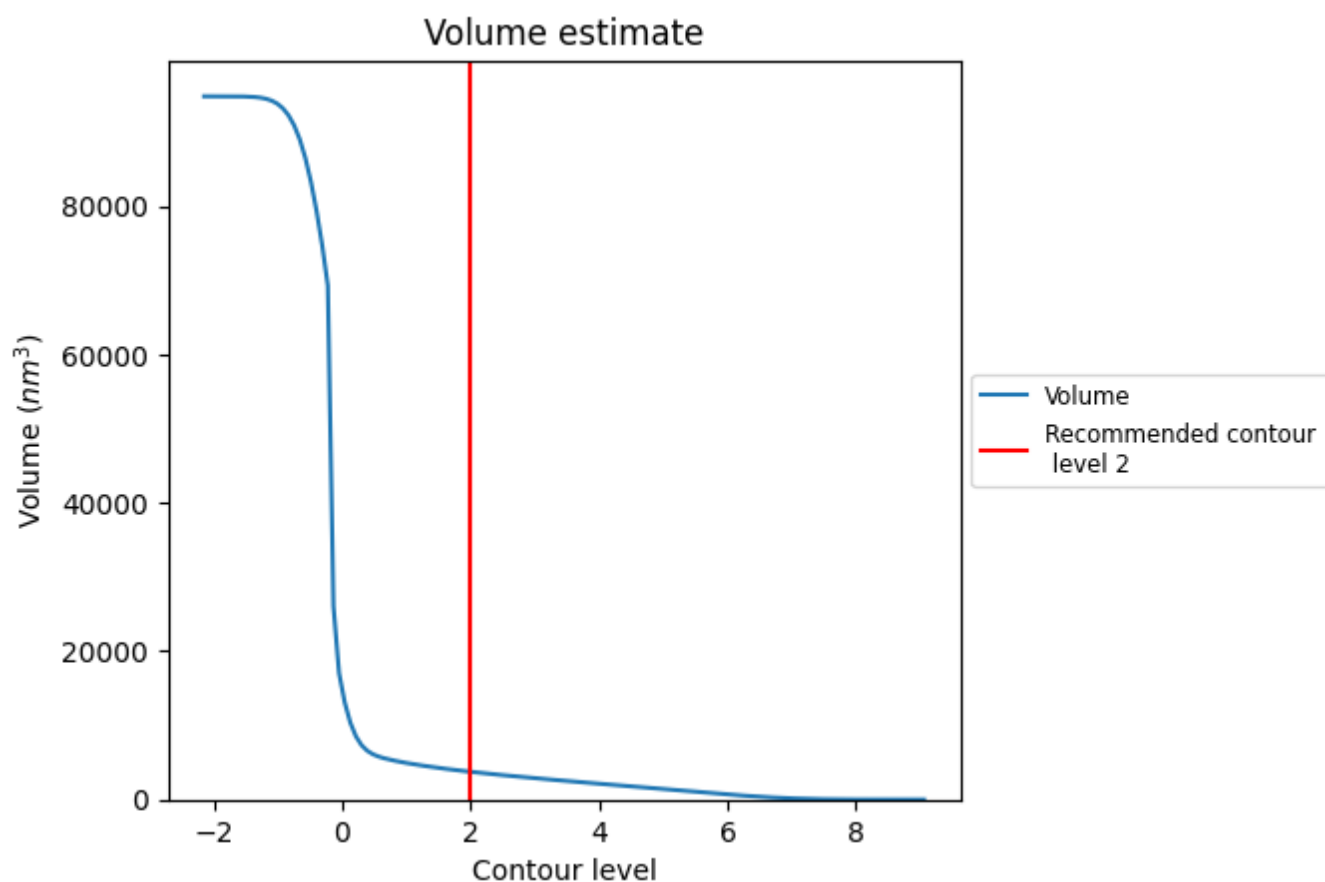
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

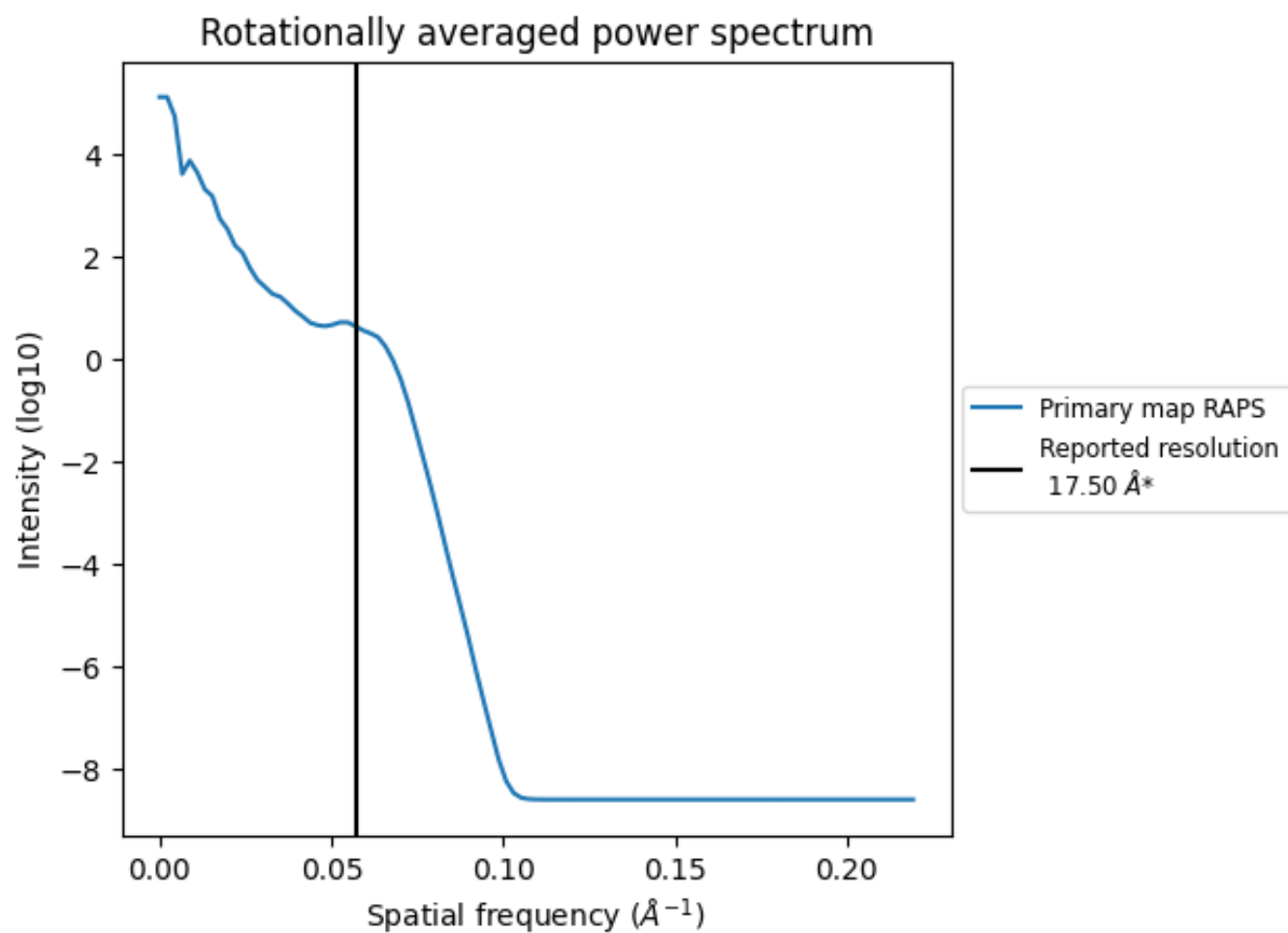
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 3745 nm^3 ; this corresponds to an approximate mass of 3383 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.057 Å⁻¹

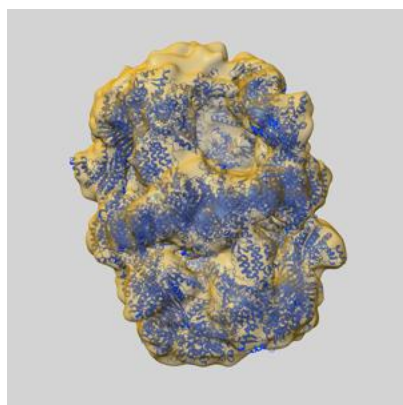
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

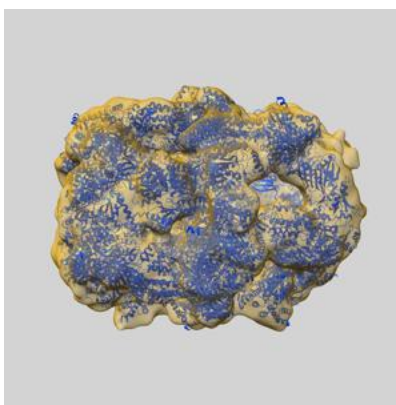
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-2357 and PDB model 4V8W. Per-residue inclusion information can be found in [section 3](#) on [page 6](#).

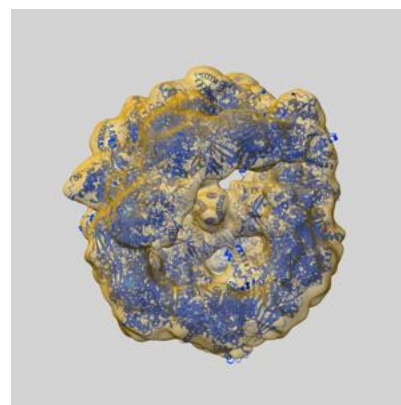
9.1 Map-model overlay [i](#)



X



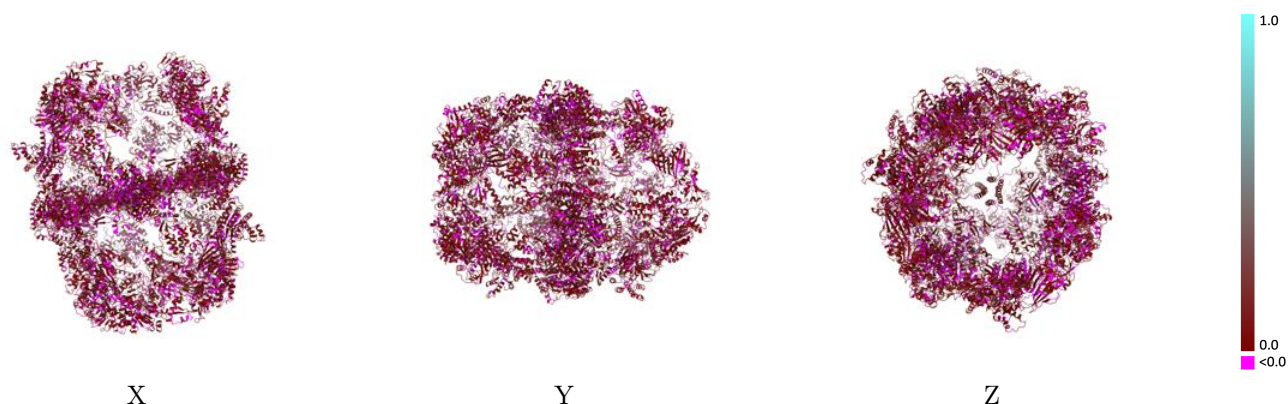
Y



Z

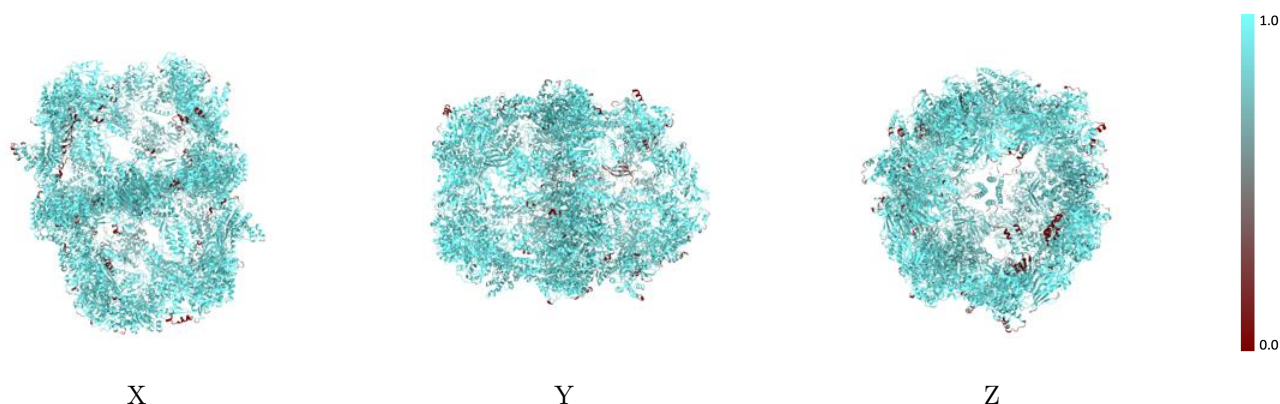
The images above show the 3D surface view of the map at the recommended contour level 2.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



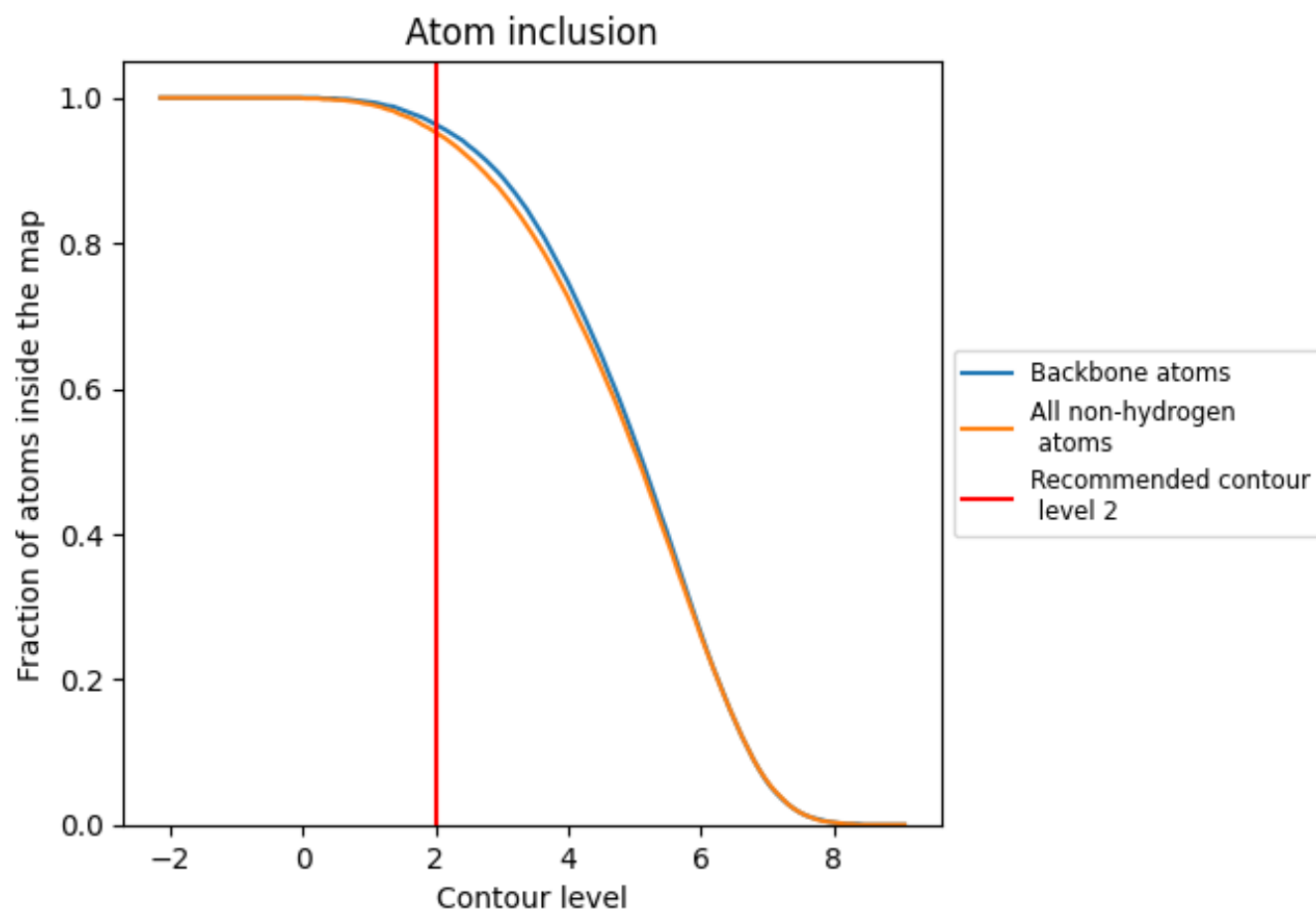
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2).

9.4 Atom inclusion ⓘ



At the recommended contour level, 96% of all backbone atoms, 95% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9520	0.0580
A	0.9650	0.0610
B	0.9640	0.0600
C	0.9550	0.0590
D	0.9110	0.0500
E	0.9660	0.0610
F	0.9480	0.0570

1.0

0.0

<0.0